February, 1954

SOAP and Sanitary Chemicals

In this issue...

Germicidal soap volume soars in food handling

* * *

Know type of salesman you want before hiring

* * *

Survey of buyer's costs sells sanitary supplies

* * *

Home economist aids in specialties marketing

Cover photo . . . Newly elected A.A.S.G.P. president, Charles S. Campbell, president of J. B. Williams Co., Glastonbury, Conn., presides at one of the sessions during recent meeting of soap and detergent makers in New York City.

Repackers! Compounders! Blockmakers!

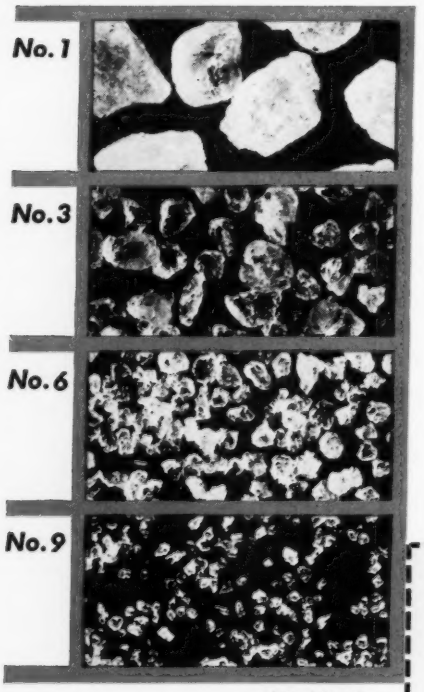
SOLVAY **Exclusive Process**

gives you a Superior

PARA-DICHLOROBENZENE

at no extra cost!

4 sizes of Crystals to choose from:



(Actual Sizes)

A Better Quality Para with These *Outstanding Advantages:*

- **Uniform Granulation**
- **High Purity!**
- **Better Appearance!**
- **Better Color!**

SOLVAY'S Advanced New production methods now make it possible to give you a *premium quality* Para—at regular prices!

Here's The Best Way to prove the superiority of SOLVAY Para. Send for samples and make your own comparison tests. SOLVAY Para is available in various granulations for repacking, pressing and compounding.

Mail Coupon Now for Test Samples!

Soda Ash • Caustic Soda • Calcium Chloride
Snowflake® Crystals • Ammonium Bicarbonate
Potassium Carbonate • Cleaning Compounds
Chlorine • Caustic Potash • Sodium Nitrite
Sodium Bicarbonate • Ammonium Chloride
Monochlorobenzene • Para-dichlorobenzene
Ortho-dichlorobenzene

Boston • Charlotte • Chicago • Cincinnati • Cleveland
Detroit • Houston • New Orleans • New York • Philadelphia
Pittsburgh • St. Louis • Syracuse

SOLVAY PROCESS DIVISION

Allied Chemical

Allied Chemical & Dye Corporation
61 Broadway, New York 6, N. Y.

Gentlemen: Please send me at no cost or obligation:

☐ FREE TRIAL PACKAGE OF SOLVAY Para in the following granulations: _____

☐ Complete information on SOLVAY Para.

Name _____

Company _____ Position _____

Address _____

City _____ Zone ____ State _____ DM-2

FULD BROS. INC.

fbi news

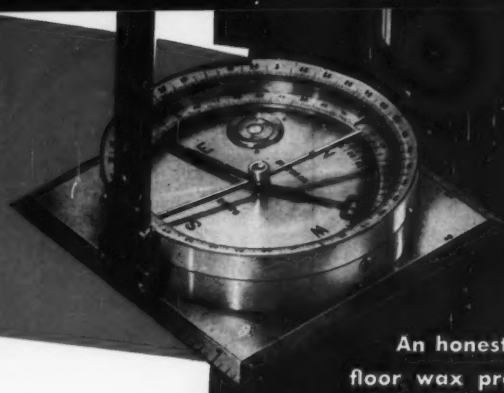
FOR THE SANITARY CHEMICAL JOBBER AND DISTRIBUTOR

PRODUCTS, PROSPECTS, TRENDS AND MARKETS

PUBLISHED BY FULD BROTHERS, INC., MANUFACTURING CHEMISTS • SANITARY CHEMICALS
702 S. WOLFE STREET, BALTIMORE 31, MD. • WEST COAST PLANT: LOS ANGELES 13, CALIF.

A GUIDE

TO WAX PRODUCTS PURCHASING FOR PRIVATE BRAND RESALE



An honest appraisal of floor wax products as we see it is offered to guide wax buyers who want the best quality money can buy...

SELF POLISHING WAXES

Candy's Supreme (standard)

Bright Beauty (standard)

Candy's Supreme Special WR
CAND-DOX #CS
CAND-DOX #BB

Seven floor waxes that *are* all-around top quality for any given traffic condition. Each imparts the finest protection and beauty to floors for which they are best suited.

Bright Beauty FLOOR CLEANER

An outstanding material for removing even the heaviest wax film and dirt.... Brings neglected floors "back to normal." The *right* cleaning agent to insure the most efficient floor maintenance.

Bright Beauty CREAM FURNITURE POLISH

A cream furniture polish that spreads easily, polishes without excessive effort and imparts a deep impressive lustre. Too, it permits *repeated repolishing* with a dry cloth saving reapplication time and again; truly a very economical polish of very highest quality.

Bright Beauty PASTE WAX

A paste wax that is properly blended and refined from excellent quality solids and solvents that produce the best drying time and thorough evaporation. A wax that is easy to handle, having "creamy" consistency and stability throughout its stocking and usage period.

Bright Beauty LIQUID (spirit) PREPARED WAXES

Complete line of spirit dissolved waxes that meet a wide variety of demands for durability, color and types of usages. Each its own "Dry Cleaner," they keep a surface waxed with a superb protective coating necessary to many difficult surfaces such as certain floors (where adaptable), bars, wallpaper, etc.

Bright Beauty GLASS POLISH & CLEANER and SILVER POLISH

As a Glass Cleaner (pink color) it applies evenly with little effort, wipes off easily with negligible "powdering" and produces an undeniable "feel" of cleanness to glass that is actually true in fact. Different in color only as Silver polish, it imparts a highly desirable lustre to all silver *without* abrasion and can even correct the abuses of scratchy, "quick-polish" inferior products.

Bright Beauty DANCE FLOOR WAX

Basic advantages are freedom from "balling up," thus does not gather dirt and impregnate the floor with hard spots difficult to remove...also is free from dusty effects. Adds the protective quality to expensive ballroom floors that means more "floor-years" to users everywhere.

Bright Beauty Heavy Duty PASTE CLEANER

Really *cleans* and *scours* more effectively and quicker than most scouring powders. Depending on application, it can clean to perfection even painted walls to provide a suitable repainting surface. 100% active, free from excessive abrasive quality, it frees almost every surface from all forms of foreign matter to perfection.

1. BEAUTY AND DURABILITY

should be considered together. Initial appearance is important, but for a waxed surface to remain beautiful it must be durable. Durability depends not only on resistance to the abrasion of traffic but even more so on resistance to the collection of dirt and to discoloring traffic marks. Durability is really measured by how long the waxed surface maintains a nice appearance before the necessity of complete removal and re-waxing.

2. ANTI SLIP

qualities are necessary in a good wax as a matter of safety underfoot. This important quality does not necessarily require the sacrifice of beauty and protection which are the foremost original reasons for the use of a wax. Look for the proper balance—a wax film which is not excessively slippery yet which is not tacky and does not excessively collect dirt.

3. WATER RESISTANCE

is important, particularly when considering the possibility of wet traffic and the necessity for frequent damp mopping for the purpose of removing surface dirt. Overdoing this quality means greater difficulty in applying multiple coats of wax and may seriously increase the difficulty in removal when complete cleaning and re-waxing is necessary. Water resistance is important, but so is the quality of removability.

4. SOLID CONTENT

when expressed in percentage is not nearly as important as the *quality* of the solid content. When considering good quality, 12% of solids answers most needs for good planned maintenance programs. Two applications of 12% will give better results than one of 18%. However, the more concentrated material is useful for some programs of maintenance and particularly on "washed-out" floors, etc. Over-waxing should be avoided so that periodic complete removal will not be too difficult.

5. CARNAUBA WAX

is still the most important basic ingredient in our floor waxes. When refined and compounded with other important ingredients and "KNOW HOW" it aids materially in producing the most important features of a good floor wax... ALL AROUND QUALITY OF PERFORMANCE.

• CANDY'S DISTRIBUTION AND SALES POLICY

Our products are available for private brand resale and are sold only through Distributors except for experimental accounts in Chicago essential to research.

Wax Specialists for over 60 years

Candy & Company, Inc.

2515 W. 35th ST., CHICAGO

SOAP and Sanitary Chemicals

Volume XXX. No. 2 February, 1954

CONTENTS

In Brief—As the Editor Sees It	31
As the Reader Sees It	33
Soap Assn. Meets, Elects C. S. Campbell	34
Essential Features of a Valid Patent By Albert Woodruff Gray	38
Hiring Salesmen By R. F. Huntley	41
Germicidal Soaps By Ferdinand A. Korff	44
Soap for the Home Clothes Washer By Florence Ehrenkranz, Velma Williams Hyatt and Margaret Beale	46
New Products Pictures	48
Shoe Cream Manufacture	85
Cost Survey Sells Sanitary Supplies By Phil Lance	129
New House Fly Insecticides By W. A. Gersdorff, Norman Mitlin and R. H. Nelson	133
Marketing Chemical Specialties By Elmyra Konnak	134
Diatomite as an Abrasive for Cleaners and Polishes By L. E. Weymouth and P. A. Martinson	139
Toxicity of Quaternaries By J. K. Finnegan and J. B. Dienna	147
Bids and Awards	75
New Trade Marks	77
Production Clinic	93
Products and Processes	99
New Patents	101
Soap Plant Observer	103
Sanitary Products Section	107
Classified Advertising	179
Advertisers' Index	187

Published monthly by
MAC NAIR-DORLAND COMPANY

IRA P. MAC NAIR
President

GRANT A. DORLAND
Vice President and Treasurer

Publication Office
254 W. 31st St., New York 1, N. Y.

Chicago Office
333 N. Michigan Ave.

AUDITED PAID CIRCULATION ABC

Subscription rates: U. S., $4.00 per year; Canadian, $5.00; Foreign, $6.00. Copy closing dates — 22nd of month preceding month of issue for reading matter and 10th of month preceding month of issue for display advertising. Entered as second-class matter June 16, 1949, at the Post Office, New York, N. Y., under the act of March 3, 1879.

KYNO-CUES

ONYX OIL & CHEMICAL COMPANY

PROBLEM ***To find an efficient dishwashing detergent that will not inactivate a quaternary rinse***

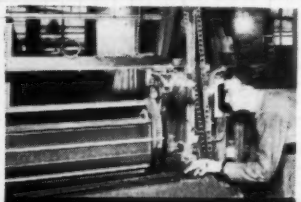
A large supplier of detergents for dishwashing found that the detergent he was providing for automatic dispensers was inactivating the quaternary used in a sanitizing rinse in the next sink. The unit, which quickly and accurately dispenses the correct amount of detergent along with the proper amount of quaternary in the next sink, is extremely advantageous to use, provided the detergent did not inactivate the quaternary.

SOLUTION **NEUTRONYX 600**

Efficient detergent and emulsifier, non-ionic NEUTRONYX 600 answers need

Unexcelled as a detergent for the washing of dishes, glassware and other hard surfaces, NEUTRONYX 600 proved the perfect answer to the problem because of its non-ionic character, together with its superiority to soap. Surfaces washed with NEUTRONYX 600 dry to a brilliant unspotted appearance without toweling. Most important, of course, in addition to its excellent detergent and emulsifying properties, NEUTRONYX 600 does not affect the sanitizing action of quaternary rinses.

DETERGENTS



METAL BURNISHING

DISHWASHING COMPOUNDS

One of the most versatile as well as efficient detergents available, NEUTRONYX 600 has an unusually wide range of uses and applications. It serves also as an emulsifier, wetting agent and dispersing agent. Extremely dependable, NEUTRONYX 600 is compatible with acids, alkalis and electrolytes,both cationic and anionic surfactants, is stable at low, medium and elevated temperatures, will not deteriorate in storage, is resistant to hard water and has a low volatility.

Outstanding as it is for its detergency, NEUTRONYX 600 is important, too, for the economy with which it achieves these superior results. This economy carries over into its other uses, which include:

EMULSIFIER -- Formulation of DDT, chlordane and lindane; emulsion paints; cosmetics; shampoos; polishing waxes and pastes, etc.

WETTING AGENT -- In coal mining; steel pickling; clay and ceramic manufacture; wallpaper removal, and others.

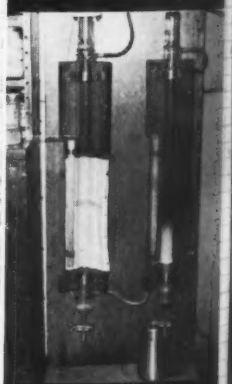
DISPERSING AGENT -- For metal polishing; pigments; dispersion of insoluble soaps in hard water.

Complete data on the remarkable properties of NEUTRONYX 600 are available upon request. Write for them today.

EMULSION PAINTS

DDT SPRAYS

ORE FLOTATION



ROSS-MILES FOAM METER

PROBLEM

To increase the saleability through greater detergency and foaming

The sales appeal of numerous products today rests on their efficiency as detergents and, because of the demand built up for them, extensive foaming properties. Many items are sold almost solely on the basis of that foaming action, while the more powerful a detergent (within reasonable limits) the greater its appeal.

SOLUTION

MAPROFIX POWDER LK

offers high activity at low cost

A 92 per cent active detergent and foaming agent, MAPROFIX POWDER LK (sodium lauryl sulphate) is truly unusual for its properties. Its high concentration makes it one of the most potent synthetic detergents available, and it is noted as well for exceptional foaming action -- large volume, high density and extraordinary persistency

While especially recommended as a foaming agent for dentifrices, shampoos and other cosmetic products, MAPROFIX POWDER LK is also an excellent dispersing agent for insecticides, fungicides and cosmetics and is especially recommended as a carpet cleaning, general household and industrial detergent.

ONYX -OL 336, 368

ONYX-OL 336 is being used in large volume as a foam builder and stabilizer in one of the most popular liquid household detergents for hand dishwashing. Such compounds generally consist of an alkyl aryl sulfonate, a sulphonated non-ionic and the foam stabilizing agent. ONYX-OL 336, being a lauric acid alkanolamine condensate, is usually used in a ratio of one part to each six parts of anionic detergents.

The versatility of ONYX-OL 336 -- combining together with its excellent wetting, penetrating and dispersing actions and unusual detergent qualities -- makes it a most remarkable product, equally suitable for a wide range of uses from bubble bath compounds to ore flotation.

A companion product, ONYX-OL 368, is a fatty acid monoalkanolamide, which comes in powdered form. It is ideal for addition to sulphonated detergents where foam stabilization is the primary requirement.

There are a number of other fatty acids to meet every need for foaming action in household detergents, bubble baths, car washing, etc. Write today without obligation.

ONYX OIL & CHEMICAL COMPANY

INDUSTRIAL DIVISION 186 WARREN ST., JERSEY CITY 2, N. J.

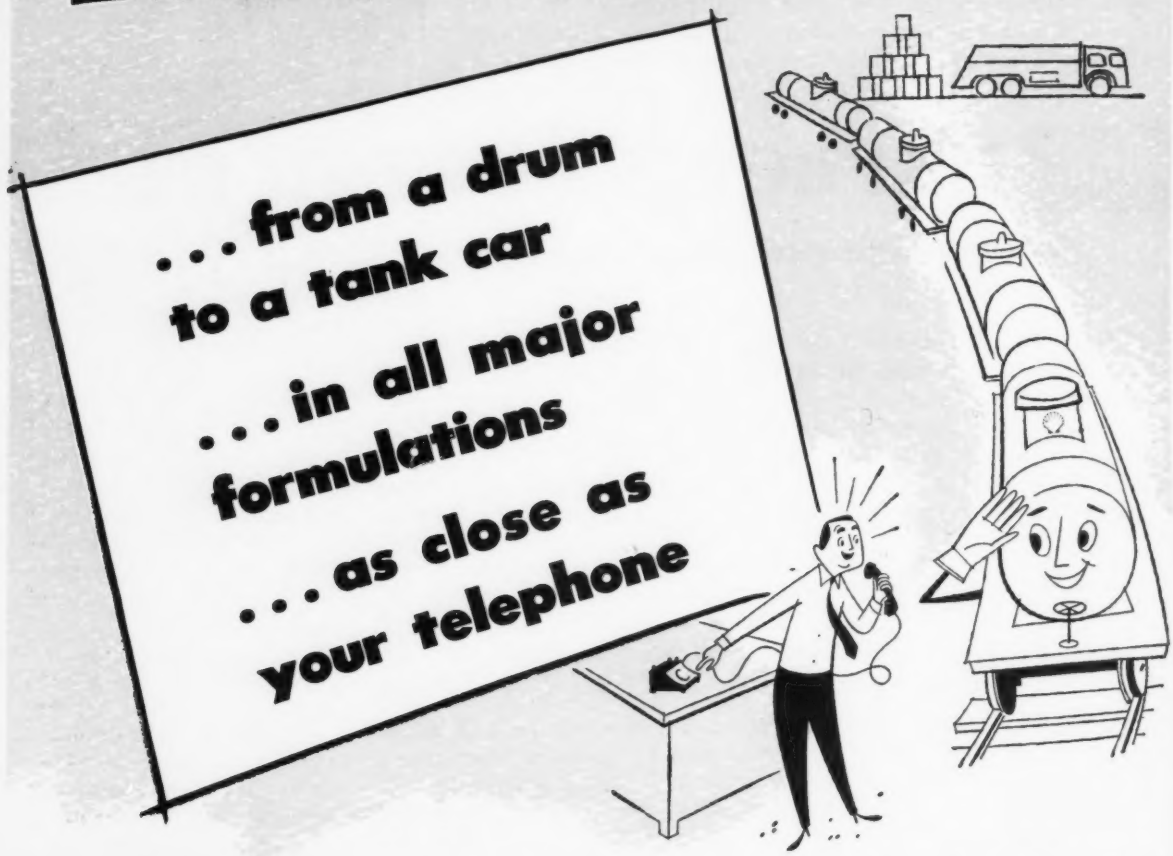
CHICAGO · BOSTON · CHARLOTTE · ATLANTA

For Export: ONYX International, Jersey City 2, N. J. West Coast Representative: E. E. Browning Co., San Francisco, Los Angeles

NOW!

SHELL CHEMICAL

ETHYL ALCOHOL



As THE NEED for dependable petroleum-derived ethyl alcohol has become more and more urgent, Shell Chemical has expanded its distribution facilities.

Now, complete denaturing plants have been established in three key industrial centers, ready to make the fastest possible delivery to you in any quantity you may need . . . in drums, tank trucks, compartment trucks, tank cars or compartment tank cars.*

Shell Chemical's ethyl alcohol is of the highest quality, meeting or surpassing all Federal and commercial specifications for purity. It is available as pure alcohol (190 proof), in specially and completely denatured grades, and as the two proprietary solvents, Neosol® and Neosol A.

Your Shell Chemical representative will be glad to discuss your alcohol supply problem with you, at your convenience. You are invited to telephone or write.

*Tank truck and drum availability west of Rocky Mountains is limited.

SHELL CHEMICAL CORPORATION

CHEMICAL PARTNER OF INDUSTRY AND AGRICULTURE

Eastern Division: 380 Madison Avenue, New York 17 • Western Division: 100 Bush Street, San Francisco 6
Atlanta • Boston • Chicago • Cleveland • Detroit • Houston • Los Angeles • Newark • St. Louis
In Canada: Chemical Division, Shell Oil Company of Canada, Limited • Toronto • Montreal • Vancouver

After Closing . . .

Bates Chem. Corp. Set Up

Harold R. Bates has resigned as manager of the Harris Soap Division, Hygrade Food Products Corp., Buffalo, N. Y., to form Bates Chemical Corp., Buffalo, it was announced recently. The new firm will manufacture potash soaps, a general line of household chemical specialties, and protective coating for paint spray booths. Mr. Bates' previous associations include Swift & Co., Chicago; Continental Soap Co., Boston, of which he was president; and Harris Soap Co., Buffalo, of which he was president until it was purchased by Hygrade Food Products Corp. in 1945. Mr. Bates can currently be reached at P.O. Box 241, Buffalo 12, N. Y.

—★—

Holcomb Builds on Coast

Construction of a new $300,000 plant in Oakland, Calif., was to get underway shortly, it was announced recently by J. I. Holcomb Mfg. Co., Indianapolis. The plant will be used for the production of sanitary chemicals, including waxes, and brushes.

—★—

NPCA Names Spear

Dr. Philip J. Spear has been appointed technical director of the National Pest Control Association to succeed Dr. Ralph E. Heal who has been advanced to the position of executive secretary, it was announced recently.

Dr. Spear, a native of Massachusetts, received his B.S., M.S., and Ph.D. degrees, all in entomology, from the University of Massachusetts. He spent five and one half years in structural pest control work in California and one year in insecticide sales and service for Niagara Sprayer & Chemical Co., Middleport, N. Y. As part of his graduate work (1948-1952) he worked on research projects for American Aerovap, Inc., New York, whose research laboratories he directed later. His graduate studies also involved the testing and screening of a wide variety of insecticides. His undergraduate training included a research assistantship in entomology which comprised experimental work in formulating and applying insecticides under the direction of Professor A. I. Bourne. Dr. Spear served with the Army from 1942 through 1945.

—★—

Edmon Visits Grasse

Harold J. Edmon, vice-president of Roubechez, Inc., New York, returned recently from a trip to France, where he discussed essential oil and natural products with Messrs. Jean Roure and Pierre Ziller. They are the principals of S. A. Jean Roure, Pierre Ziller, Bruno Court of Grasse, France, which Mr. Edmon made arrangements to represent in the United States and Canada. The Grasse firm was formerly represented by Naugatuck Aromatics, a division of U. S. Rubber Co., New York, which was purchased by Roubechez in December, 1953.

Confidence that 1954 will be a good business year in the perfume industry was expressed by Messrs. Ziller and Roure, according to Mr. Edmon. Some price increases are foreseen as a result of expanded markets and reduced stocks of some essential oils, brought about by depressed prices following the outbreak of the Korean War.

The effects of low essential oil prices continued after the conclusion of hostilities in Korea, with the result that no crops were overproduced. At the same time, the use of lavender and lavadin oils has expanded because of their low cost.

Perfumery uses in general should increase this year in keeping with the trend of the past few years. According to Mr. Edmon there has been a big increase in absolute Mimosa production in the Grasse area in the last few years. He also reports that the production of all natural products in the Grasse area continues at a high level in order to fill world needs.

—★—

New Wyandotte Plant

Wyandotte Chemicals Corp., Wyandotte, Mich., has begun construction of a new plant at Los Nietos, 16 miles southwest of Los Angeles, it was announced recently by Robert B. Semple, president. Production in the new plant is scheduled to start in August, when manufacturing will be discontinued in the present Wyandotte plant in Los Angeles. The new unit will occupy a five-acre plot and will house research and technical service laboratories, manufacturing and shipping facilities, and the Los Angeles district office of the company. A complete line of the firm's business and industrial cleaning products will be produced in the new plant.

Harold Edmon of Roubechez, Inc., New York, center, meeting in France with Pierre Ziller left, and Jean Roure of S. A. Jean Roure, Pierre Ziller, Bruno Court, Grasse, France, essential oil firm, which Mr. Edmon's firm is now representing in the United States and Canada.

E-Z-GO in Canada

Edgar L. Ahrens, president of Amaza Laboratories, Inc., Macedonia, Ohio, has announced recently that their hand cleaner, "E-Z-GO," is now being manufactured in Canada. An arrangement has been made with A. Lou Copeland, president of the Copeland Laboratories of Toronto to manufacture and market "E-Z-GO" throughout the Dominion of Canada. The hand cleaner is a special product designed for the removal of printing ink, paints, and other hard-to-remove stains from the hands.

—★—

Aerosols Now Mailable

The mailing of certain pressurized packages hitherto refused the use of the mails has been approved by the Post Office Department. The change was announced in Postal Bulletin, February 2, 1954 as "Change-Postal Guide—Part I," change No. 58, and reads:

"Article 35, chapter IV, is changed by deleting subparagraphs (e) and (f) and substituting subparagraph (e) therefore as follows:

"(e) Aerosol type inside nonrefillable metal containers charged with a solution of materials and compressed gas or gases of capacity not to exceed 30 cubic inches (16.6 fluid ounces). Pressure in the container not to exceed 55 pounds per square inch absolute at 70° F., and the liquid content of the material and gas must not completely fill the container at 130° F. Each completed container filled for shipment must have been heated until content reached a minimum temperature of 130° F., without evidence of leakage, distortion or other defect. The words "Compressed Gas" shall be plainly marked on the outside of the parcel. Such containers with pressure under 40 pounds per square inch at 70° F., do not come within the compressed gas regulations."

Pertinent parts of article 35 preceding subparagraph (e) include (b) which refers to small cylinders of compressed gas which are mailable and specifications therefore. Compressed gas (any material or mixture having in the container either an absolute pressure exceeding 40 pounds per square inch at 70° F. or an absolute pressure exceeding 104 pounds per square inch at 130° F. or both), of the nonexplosive, noninflammable, non-poisonous types in non-shattering steel containers complying with Interstate Commerce Commission specifications therefore, and filled and charged in accordance with Interstate Commerce Commission regulations, may be admitted to the mails. The containers must be individually cushioned in suitable, securely fastened outside boxes such as double-faced corrugated fiberboard boxes testing not less than 175 pounds per square inch (Mullen or Cady tester) for cartons not over 5 pounds in weight and testing not less than 200 pounds for heavier cartons, with an inner liner of the same material or the equivalent in other suitable cushioning material. These cylinders must have the release mechanism properly protected against damage or accidental discharge in the postal service. Specifications as to size of cylinder, safety devices, and labeling, must be followed."

These revisions are the result of presentations by the Special Post Office Policy Committee of the Chemical Specialties Manufacturers Association to the Post Office Department. The committee stresses the importance of observing all pertinent regulations and summarizes them: Be certain that (1) valves are protected; (2) strong, well constructed outside containers are used; (3) suitable absorbent material is included as required or indicated by good judgment; (4) units are labelled completely; (5) water bath testing be done at 130°F of all aerosol packages. This must be followed and may be a subject for inspection by the Post Office. The C.S.M.A. committee has agreed to continue research on safety features.

—★—

Son to Yankners

The birth of a son, Bruce A. Yankner at Barnet Hospital, Paterson, N. J., was announced recently by Mr. and Mrs. Paul Yankner. Mr. Yankner is general manager of Sanitary Soap Co., Paterson. This is the couple's first child.

—★—

P & G Reports Six Months

Procter & Gamble Co., Cincinnati, recently reported consolidated net profit of $25,865,298, equal to $2.68 a common share, for the six months ended December 31, compared with $24,101,835, or $2.50 a share, in the like period a year earlier.

In the latest report provision was made for $32,136,000 in United States and foreign income taxes and $4,375,000 for excess profits tax. The provision for excess profits tax was made at the rate in the law which expired December 31, 1953.

Soap Liability Rulings

The Supreme Court of Ohio in a recent decision reversed a lower court's ruling that Procter & Gamble Co., Cincinnati, was responsible for personal injuries sustained by an individual using a bar of soap made by P&G in which a wire was imbedded. In the case of Krupar v. Procter & Gamble Co. the jury in the trial court held for the plaintiff under instructions by the court that the manufacturer could be liable even though there was no proof of negligence. This was reversed on appeal, the appellate court holding that the instructions by the court to the jury were erroneous. The judgment was entered for the defendant (Procter & Gamble).

In another recent product liability case involving a detergent, the United States Court of Appeals for the Fifth Circuit reversed a trial court verdict that there was no liability in the case of Hardy v. Procter & Gamble. The action was to recover damages for loss of sight allegedly arising out of the use of a detergent (sodium lauryl sulphate). The plaintiff claimed she was injured when the detergent got into her eyes when she was using it to clean surgical instruments in her work as a nurse. The trial court directed a verdict for the defendant holding that there was no liability. On appeal, this was reversed; the appellate court holding that the question of liability should have been submitted to the jury.

—★—

Guy D. Marrocco Dies

Guy D. Marrocco, director of research for Carman & Co., Brooklyn, N. Y., died suddenly January 12 as the result of a heart attack suffered while on duty in the firm's executive office. He was 47. Mr. Marrocco has been associated with the laundry and dry cleaning industry for nearly 25 years and had served Carman as head research chemist and technical advisor since 1934.

Mr. Marrocco is survived by a widow, Antoinette Marrocco, two children, Guy Jr., aged 16, and Dorothy, aged 11.

New Rhodia Plant in Paterson, N. J.

New Rhodia Plant

Rhodia, Inc., New York, has started operations at its new aromatic chemicals plant in Paterson, N.J., it was announced early this month by Edward A. Bush, manager of the company's aromatic sales.

At the plant, Rhodia will create and distribute a complete and original line of aromatics, perfume bases and specialties, under processes recently reacquired from E. I. du Pont de Nemours & Co. Louis Appel, for many years a perfumer for du Pont, is now head perfumer at the Paterson plant.

—— ★ ——

Idico Sprayer Available

Idico Products Co., New York, N. Y. has announced a completely redesigned pistol type sprayer for insecticides, deodorants, water and water emulsion sprays and various other purposes. The new sprayer is 10½" high and 9½" long to the tip of the nozzle and weighs 18½ ounces. It can be operated with one hand and works on self-contained pressure. There are two interchangeable nozzles for a fog spray and pin stream nozzle and a swivel directional extension. Filling is made more convenient by a large opening in the brass bottom container.

—— ★ ——

DCAT Dinner March 4

The appointment of the following members to head committees for the 28th annual dinner of the Drug, Chemical and Allied Trades Section of the New York Board of Trade to be held March 4, at the Waldorf-Astoria Hotel, New York, was announced recently by Stanley I. Clark of Sterling Drug, Inc., New York, DCAT chairman:

Dinner arrangements committee—Claude A. Hanford, Pharmaco, Inc., chairman; Dudley Dunlop, Mallinckrodt Chemical Works, vice-chairman;

Dinner program committee—Lloyd I. Volckening, Ivers-Lee Co.,

—— ★ ——

Giegy Names LeVasseur

The appointment of Saul LeVasseur as branch manager of the northeast territory of Geigy Agricultural Chemicals Division of Geigy Chemical Corp., New York, was announced recently. Mr. LeVasseur, former state sales manager of Maine, succeeds G. D. Baerman, who recently resigned.

Mr. LeVasseur's new assignment covers an area from Maine south to Virginia and west to Ohio. He is to make his headquarters in Elkton, Md.

—— ★ ——

Strobane Accepted

Strobane, the new chlorinated terpene insecticide material manufactured by the B. F. Goodrich Chemical Co., Cleveland, has been accepted for use in houshold insect sprays and aerosols by the U. S. Department of Agriculture, according to an announcement by Robert P. Kenney, manager of chemical sales for Goodrich. In making the announcement, Mr. Kenney stressed that Strobane is one of the safest insecticide materials yet made available and is the first chlorinated substance to receive USDA acceptance in several years. Further facts about Strobane are available from Goodrich at 2060 East 9th St., Cleveland.

—— ★ ——

Economics Lab. Moves

Economics Laboratory, Inc., St. Paul, is planning to move its advertising and sales offices to 250 Park Ave., New York City, it was learned recently. E. B. Osborn, president of Economics will make his headquarters at the new office. At present, Economics has a sales office at 250 Fifth Avenue, New York.

—— ★ ——

Diamond Names Two

The appointment of Bruce D. Gleissner as assistant general manager of the recently established chlorinated products division of Diamond Alkali Co., Cleveland, was announced late last month by C. E. Lyon, division manager.

L. T. Polite, Jr., has been advanced to the post of agricultural chemicals sales manager.

Mr. Gleissner is responsible for sales, new product development, technical applications and all phases of agricultural chemicals activities except production. He was formerly manager of the insecticide department of American Cyanamid Co., New York, and from 1940-44 was a member of the faculty of Pennsylvania State University.

Mr. Polite has been agricultural chemicals assistant sales manager for the past two years with headquarters at the company's eastern agricultural chemicals plant in Newark, N. J. Prior to this he had been active in the chlorinated solvents sales field from 1942, when he joined Diamond following his graduation from Williams College. He is a veteran of World War II and saw service with the U. S. Navy in the Pacific.

Mr. Gleissner received his B.S. from the University of Kansas in 1937. He earned his master's degree from Ohio State University the next year and in 1943 received a Ph.D. in entomology from Ohio State.

N. S. S. A. Program Stresses Sales

PROGRAM details of the 31st annual convention and trade show of the National Sanitary Supply Association, to be held March 21-24 at the Conrad Hilton Hotel, Chicago, were released early this month by Leo J. Kelly, executive vice-president. Highlighting the program is a talk by Frank Lovejoy of Socony-Vacuum Oil Co. New York, outstanding and widely-known speaker on the subject of sales and sales training. A panel on building maintenance, and discussions of the organization of a training school for custodians, and how to sell soap, are also scheduled for the discussion sessions of the meeting.

In addition, the mammoth display of sanitary chemicals and equipment for applying or dispensing them will be held in the main and north exhibit halls on the lower level of the Conrad Hilton Hotel. The final list of exhibitors published early this month by the National Sanitary Supply Association carries the names of 146 firms whose products will be displayed, demonstrated and sold at the show. This is the largest number of exhibitors ever to appear at a N.S.S.A. sponsored show, and is made possible because of the availability of the newly opened north exhibit hall of the Conrad Hilton, which has been converted from what was formerly the coffee shop. Besides a larger number of exhibitors than ever before, the attendance of sanitary supply buyers is expected to break previous totals, judging by advance registrations.

The meeting schedule calls for the setting up of exhibits in booths 1 to 162, inclusive, Saturday morning, Mar. 20, beginning at 8:00 a.m. Booths 200 to 239, inclusive, in the north exhibit hall are to be set up Saturday afternoon, Mar. 20, beginning at 2:00 p.m. The exhibit halls open Sunday morning, Mar. 21, at 9:00 a.m. and remain open until 7:00 p.m. Registration on Sunday, Mar. 21, is from 9:00 a.m. until 5 p.m. On the second day of the meeting, Monday, Mar. 22, the exhibits are open from 9:00 a.m. until 12:00 noon, when the exhibit halls close for luncheon and the business meeting, which runs until 4:30 p.m. The exhibit halls reopen at 4:30 and remain open until 9:00 p.m. The exhibits are open from 9:00 a.m. until 12:00 noon only, on the third day, Tuesday, Mar. 23. The second business meeting is held in the afternoon until 4:30, when adjournment takes place to prepare for the banquet, Tuesday evening at 7:00 p.m. The final day of the meeting exhibits are open from 9:00 a.m. until 1:00 p.m. There is no meeting session on the final day.

—★—

New C-P Insecticide

The appointment of Street & Finney, Inc., New York advertising agency, to handle "Kan-Kil", described as a new aerosol insecticide made by Colgate-Palmolive Co., Jersey City, N. J., was announced recently. Although no further details were disclosed regarding the new product, this is believed to be the first insecticide ever to be marketed by Colgate-Palmolive Co., which is basically a soap, synthetic detergent and toilet articles manufacturer. Last year Colgate entered the chemical specialties field with "Florient" aerosol room deodorant. Colgate also markets an aerosol shave cream.

—★—

Ayer Sold, Resold

The Harriet Hubbard Ayer Division of Lever Brothers Co., New York, which was sold early this month to a group of five Boston business men, was resold a few days later to Nestle-LeMur Co., New York, manufacturer of "Nestle", "Mavis" and "Djer-Kiss" cosmetics and toiletries and U.S. distributor for Ed Pinaud, French men's toiletries manufacturer.

The Boston group which purchased Harriet Hubbard Ayer from Lever Brothers was headed by George N. Friedlander, who acted as nominee for the four other buyers. They included George W. Lane, Jr., president of Lewiston, Me., Trust Co., treasurer of Bates College, and director of several corporations, including National Fireworks and Clark Babbitt; Daniel Needham, member of the Boston law firm of Sherburne, Powers & Needham, former Massachusetts Police Commissioner and an officer and director of National Fireworks and Clark Babbitt; Carl Woods, chairman of the executive board of Swank, men's jewelry firm, and E. C. Babbitt, president of National Fireworks and Clark Babbitt.

—★—

Kenneth Ailing Dies

F. Kenneth Ailing, 65, who retired last year as a statistician for the Association of American Soap & Glycerine Producers, Inc., New York, died at his home in Mount Vernon, N.Y., after a long illness. His widow, Florence, survives.

—★—

Elected By Chemists' Club

Ira Vandewater, R. W. Greeff & Co., New York, recently was elected president of The Chemists' Club, New York, for the 1954-1955 term. Among other officers elected were William Wishnick, Witco Chemical Co., New York, junior vice president, and L. V. Steck, Shell Chemical Corp., New York, resident vice president.

—★—

Nat. Aniline Names Noechel

National Aniline Division, Allied Chemical & Dye Corp., New York, recently announced the appointment of Fred W. Noechel to head the firm's textile fibers application laboratory. Mr. Noechel is responsible for textile processing techniques applied to the nylon-type fiber soon to be produced at the company's plant now under construction in Hopewell, Va.

Stop the Eye...Start the Sale...

You've just made a sale. Her eye was caught by *your* product in its distinctive *blue* bottle and she's going to buy. That's not strange. Maryland Blue is a powerful salesman. It stops the eye in the store . . . invites use in window and counter displays . . . acts as a constant reminder in the home. It imparts to your product the integrity and quality that has been associated with blue through the centuries.

See for yourself why leading firms utilize Maryland Blue's rich color as an advertising, merchandising, and selling tool. Write for samples today. No obligation, of course.

MARYLAND GLASS CORPORATION, Baltimore 30, Maryland.

Pack to attract in Maryland Blue

Also available in clear glass

IN THE PREPARATION OF YOUR SOAP FRAGRANCES

TRY OUR

SAPO RESINOIDS

Benzoin
Cistus Labdanum
Geranium
Geranium B
Oakmoss
Olibanum
Orris Florentine
Styrax

Samples and quotations upon request.

ROURE-DUPONT, INC.

ESSENTIAL OILS, AROMATIC CHEMICALS AND PERFUME BASES

GENERAL OFFICES

366 MADISON AVENUE, NEW YORK 17, N. Y.

CHICAGO BRANCH
510 NORTH DEARBORN ST.

LOS ANGELES BRANCH
5517 SUNSET BOULEVARD, HOLLYWOOD

SOLE AGENTS IN UNITED STATES AND CANADA FOR

ROURE-BERTRAND FILS et JUSTIN DUPONT

GRASSE (A. M.) FRANCE

ARGENTEUIL (S. & O.) FRANCE

Making Profits for You...

This V-C Cleanser advertisement is appearing in current issues of leading trade publications. It's being read by people who need and use large quantities of high-quality cleansers to successfully operate their businesses. Hard-hitting, result-getting advertising is helping V-C Cleanser dealers to sell more V-C Cleansers to more people in shorter time.

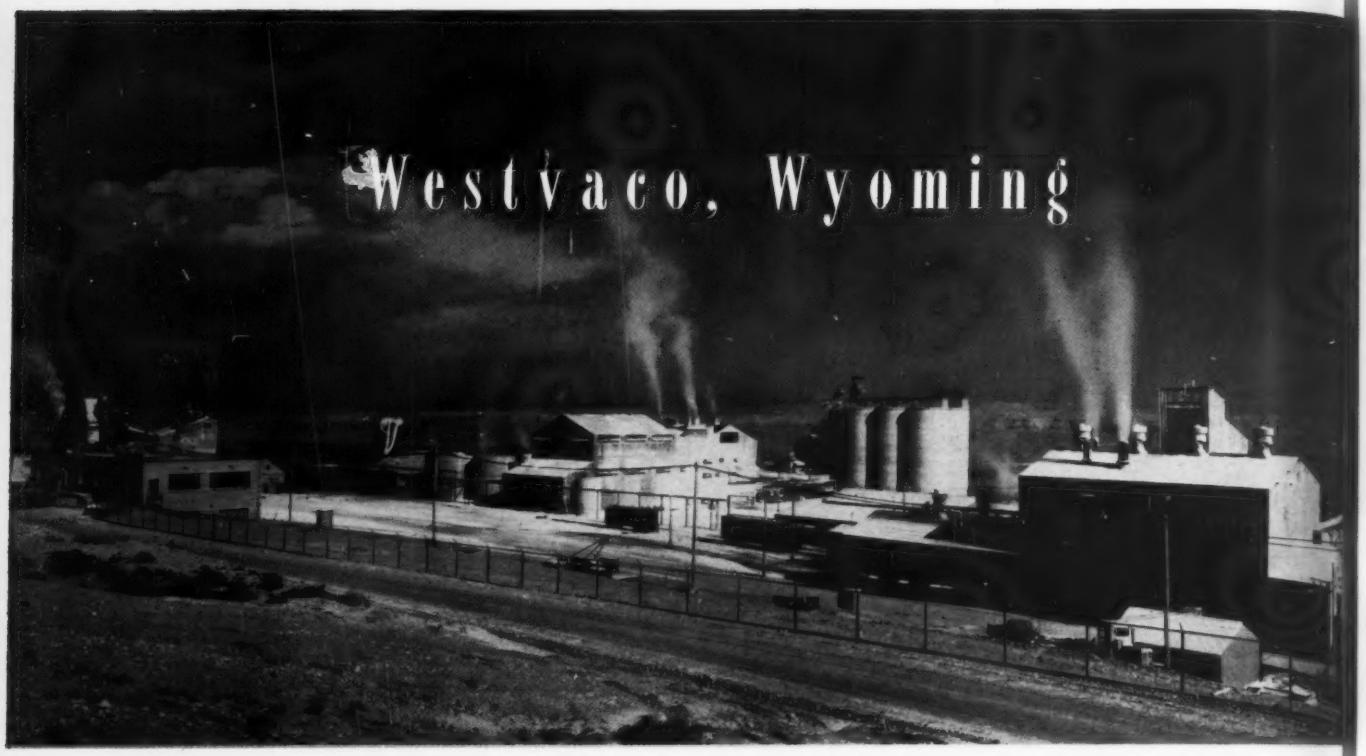
V-C Cleansers mean more profit for you . . . better cleaning results for your customers. You make more because of higher mark-ups. This is possible because V-C mines and manufactures most of its own raw materials, and passes part of the savings on to you. Your customers benefit because V-C Specialized Cleansers contain more of the quality ingredients that make cleaning easier, faster, better. On top of all this is V-C Cleanser promotion and advertising to make your selling job easier.

Write or wire the address below for facts on how you can become a V-C Cleanser Dealer.

VIRGINIA-CAROLINA CHEMICAL CORPORATION
Chemicals Division: 401 East Main Street, Richmond 8, Virginia

New Process... New Plant

NEW SOURCE OF SODA ASH



Refined by an exclusive process from the greatest deposit of pure trona yet to be developed, WESTVACO Soda Ash equals or exceeds every accepted standard of soda ash quality. Chemically, it is low in iron, chlorides and sulfates. Physically, Westvaco Light Ash has a crystalline structure which imparts excellent dispersal properties and a rapid rate of solution. Its free-flowing crystals handle easily in processing operations.

Three grades are available: *Regular Dense Ash* with a bulk density of approximately 63 lb./cu. ft. and a screen analysis which has proven to be very acceptable throughout the glass industry. *Granular Dense Ash*—a singularly dust-free product with granular characteristics which improve the handling qualities. *Light Ash*—a bulk density of approximately 48 lb./cu. ft. which increases storage capacity.

Soda ash users from the Mississippi Valley to the Pacific can benefit *right now* by this economic new source of high quality ash. We will be pleased to furnish specifications, samples and prices to prospective users within or nearby our current shipping area.

Westvaco® CHEMICALS

TRADE MARK

fmc

TRADE MARK

WESTVACO CHEMICAL DIVISION

SALES AGENT FOR

WESTVACO CHLOR-ALKALI DIVISION

FOOD MACHINERY AND CHEMICAL CORPORATION

161 EAST 42ND STREET. NEW YORK 17. NEW YORK

CHARLOTTE, N. C. • CHICAGO, ILL. • CINCINNATI, OHIO • DENVER, COLO. • LOS ANGELES, CALIF. • NEWARK, CALIF. • PHILADELPHIA, PA. • PITTSBURGH, PA. • ST. LOUIS, MO. • VANCOUVER, WASH.

YOU CAN COUNT ON THE *Complete* PAX LINE

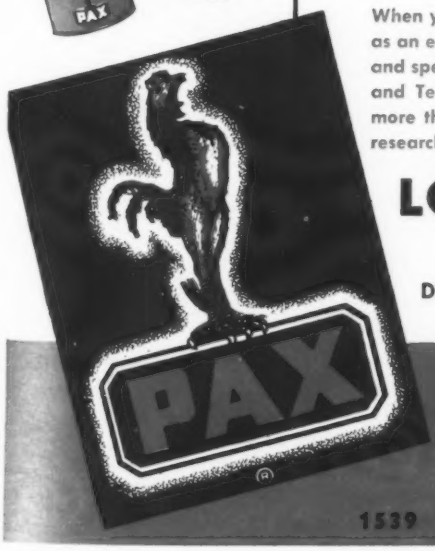
Whatever the cleaning problem, you can count on one of the many products in the complete PAX line to fill the need exactly. You can count on it for safety, quality, efficiency and competitive pricing that gets you in and keeps you there. Take on the complete PAX line and start counting your profits now!

PAX-LANO-SAV HEAVY DUTY Granulated Skin Cleanser has been awarded the Seal of Approval of the Committee on Cosmetics of the American Medical Association.

ACCEPTED COMMITTEE ON COSMETICS AMERICAN MEDICAL ASSOCIATION

PAX-LANO-SAV HEAVY DUTY is the most popular skin cleanser used in the industrial field. Its lively but gentle granules get really dirty hands clean in a hurry. PAX-LANO-SAV Emollient blended into every granule gives plus protection.

When you specify any PAX Product you get as an extra dividend the experience, ability and special know-how of our PAX Research and Testing Laboratory, acquired through more than a quarter-century of continuous research and development.



LOOK for the PAX ROOSTER

Your Assurance of a Superior Product

Distributed Nationally Through PAX Warehouses and Jobber Stocks.
Write for Information Today.

All product names are trade names of the

G. H. PACKWOOD MFG. CO.

Manufacturing Chemists

1539 TOWER GROVE AVE. • ST. LOUIS 10, MO.

in choosing a detergent for converting purposes,

you'll want to know a lot more about it
than just its chemical composition.

What are its special characteristics? And above all,
how will it perform?

ORVUS
AB GRANULES

in telling you about Orvus AB Granules,

let's start with what this efficient synthetic detergent *is*. Orvus AB Granules is a 40% active type alkyl aryl sulfonate—selected for the most efficient balance of detergent, sudsing, wetting, dispersing, and emulsifying properties. A blown product in granular form—neutral—Orvus AB flows freely, blends readily and intimately with other ingredients.

unusual Granule Characteristics

The strong structure of Orvus AB Granules resists breakdown during mixing and thus minimizes dustiness. And here is another performance characteristic you are sure to appreciate. The surfaces of Orvus AB Granules are designed to minimize stratification, sifting or settling. You get *uniform* blends with Orvus AB Granules. In addition, its uniform, white color and freedom from gumminess are features which make Orvus AB Granules a standout.

IN THE FINAL ANALYSIS:

IT'S PERFORMANCE THAT COUNTS

You'll discover many other important advantages when you start using Orvus AB Granules. We welcome inquiries regarding its use in whatever type of product you may be turning out.

Procter & Gamble
CINCINNATI, OHIO

AMERICA'S LARGEST MANUFACTURERS OF SOAPS AND SYNTHETICS

Your Liquid Cleaners **WON'T RUST**
Your Plain Steel Drums
---if you use

NINOL

SYNTHETIC DETERGENTS

Liquid cleaners made from ordinary synthetics rust so badly they have to be shipped in special resin-lined drums.

NINOL detergents completely eliminate this problem, however, because their unique chemical structure gives them strongly rust inhibiting properties. With NINOL formulations, your liquid cleaners can be shipped in *plain steel pails or drums without any rusting.* And of course the NINOLS have many outstanding properties to help you make better cleaners at lower costs. Here are two outstanding examples:

NINOL 1281

An ideal detergent for making synthetic floor and wall cleaners that are viscous and non-rusting.

NINEX 21

A high-foaming detergent for use in non-rusting liquid dishwashing and car washing compounds.

● **Write Dept. S today for Samples, Literature**

NINOL
Detergents — Emulsifiers

ALSO

NINOL AA62	For stabilizing foam of alkyl aryl sulfonates in presence of grease.
NINOL 128	For low priced viscous nonionic bar glass cleaners, and viscous detergent sanitizers.
NINOL HA10	For water-in-oil emulsions such as absorption bases or dry cleaning soaps.
NINOL 201	A thickener for synthetic detergent shampoos.

NINOL LABORATORIES, INC.

1719 W. CLINTON • CHICAGO 16 • PHONE CHESAPEAKE 3-9625

In Canada: Chemical Developments of Canada Ltd., 420 Lagauchetiere Street W., Montreal 1, Quebec

ALL AMERICAN "SUPER" GYM FINISH

the finest, the Greatest of all finishes . . .

The standard of comparison for years has been . . . improved through scientific laboratory research.

The hardest and most durable finish has been made harder and even more durable, mar and scratch proof.

The non-rubber burning film (standard of comparison for years) has been made even more resistant to cheap and composition shoes than ever before. The light, natural color, which has always been a permanent feature of All American Gym Finish has been maintained. The lustrous film obtained through high solids is even higher in the new improved All American Gym Finish.

Full coverage, however, has been preserved in our new All American Gym Finish as its solid content is still fifty per cent.

For complete information on the product that will make a success story come true, write today to the

T.F. WASHBURN COMPANY

2244 Elston Avenue, Chicago 14, Illinois

need stability to acids and alkalis?

USE THESE RENEX® DETERGENTS

RENEX 30 ➡
a white liquid, 100% active; water-white on dilution. A polyoxyethylene alkylether, with a high foaming index. Excellent wetting and penetrating qualities.

⬅ RENEX 35
a solid powder, a concretion of urea and Renex 30. High detergency in hard or soft water. Excellent wetting agent and penetrant.

These two Renex non-ionic detergents are especially useful in cleaning compounds which require high stability to acids and alkalis. They lend high detergency at low cost, to such preparations as dairy cleaners, sanitizers, metal cleaners, dishwashing compounds; and to de-inking, felt cleaning, wool scouring, dye leveling and similar industrial cleaning and penetrating compounds.

Both are compatible with a wide range of soaps, alkaline builders, organic solvents and germicides. Other Renex liquid and powdered detergents are available with low foaming index and exceptional detergency for other types of cleaning applications.

Write for samples and technical information.

INDUSTRIAL CHEMICALS DEPARTMENT

ATLAS POWDER COMPANY

WILMINGTON 99, DELAWARE

offices in principal cities

ATLAS POWDER COMPANY, CANADA, LTD.
BRANTFORD, CANADA

FOLLOW THE PATH OF TORNADO®

To coin a phrase, "Tornado is sweeping the country." Yes, this complete line of floor cleaning and maintenance equipment has become the "buy word" wherever tough cleaning jobs arise. Progressive distributors everywhere are adding Tornado as their "Top" line and cashing in on a ready made market.

New Tornado Floor Machine. Streamlined design. Tops in performance, quality and customer acceptance.

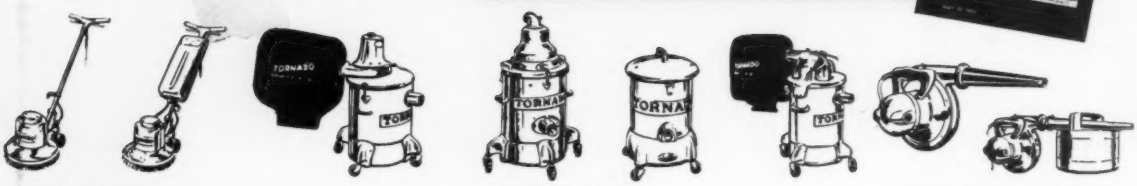
Model 92 Tornado vacuum —wet or dry pickup at air speeds up to 320 mph. A sure winner in competitive demonstrations.

Big National Advertising Program

32 publications blanket the markets in the United States and Canada. Tornado advertising reaches over ¾ of a million potential customers every month.

Progressive Distributor Sales Help Program

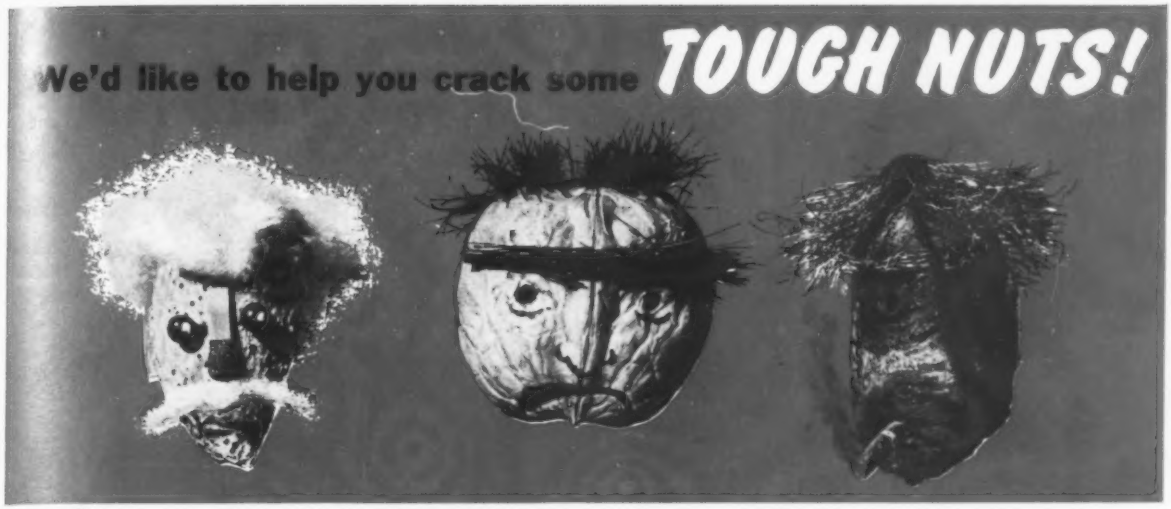
When you sell Tornado, you get all the benefits of sales meetings, salesman training, advance sales helps, forceful literature, trade show participation and many other selling aids in this complete sales promotion program.



FLOOR MACHINES | VACUUM CLEANERS | BLOWERS & SPRAYERS

BREUER ELECTRIC MFG. CO.

5082 North Ravenswood Avenue • Chicago 40, Illinois



For "HARD-TO-CRACK" wax prospects

TRY ONE OF THESE THREE GREAT ULTRA FLOOR WAXES!

We are confident that even the hardest-to-sell wax user will be delighted with the performance of the quality floor waxes listed below. And we know once they try these waxes under your own label, they'll continue to be regular users. If you'd like to have your toughest customers try these fine waxes —*at no cost to you*—mail the coupon today for full details on Ultra's FREE "tough nut" offer.

JV-12 No-Rubbing Self-Polishing Floor Wax. An entirely new formulation that overcomes the high Carnauba price problem. Formula JV-12 meets all of your quality needs, but is priced to give you volume sales.

JO-12 No-Rubbing, Self-Polishing Floor Wax. A scientific blend of selected synthetic waxes that assures pleasing lustre . . . high degree of anti-slip . . . good laydown without streaks or blemishes in dried films and high resistance to water spotting.

820-12 No-Rubbing Self-Polishing Floor Wax. For government and institution bids which specify a high percentage of Carnauba Wax, Formula 820-12 contains 12% solids, of which 62% is pure Brazilian Carnauba.

Mail coupon today!

ULTRA Chemical WORKS

ULTRA CHEMICAL WORKS, INC.

Joliet, Ill. • Paterson, N. J. • Hawthorne, Calif.

Ultra Chemical Works, Inc.
P. O. Box 2150, Paterson, New Jersey

Please send me full details on Ultra's FREE "Tough Nut" offer.

Name .....

Address .....

City ..... Zone ..... State .....

teacups
to
textiles

Whatever the Job
Formulate with MONSANTO'S

ANIONIC SANTOMERSES
NONIONIC STEROXES
. . . Complete Line of PHOSPHATES

All your wetting agent and phosphate requirements can be obtained from one major source, Monsanto. You can order anionic Santomerses,* nonionic Steroxes* and a variety of phosphates. You get: faster service, simplified ordering, and greater economies from split loads.

Because Monsanto makes this family of products, they can give you impartial advice as to the one best suited for *your* needs.

Sterox AJ, for example, has these special advantages which make it outstanding wherever a nonionic is required:

- Unusually high wetting power, emulsifying properties and surface activity.
- High stability in acid and alkaline media as well as hypochlorite.
- Faint, pleasant odor.
- Compatible with soaps as well as anionic surface-active agents. Can be used with soaps and sanitizers.

Why not let Monsanto's technical service group work with your staff to determine the type wetting agent and phosphates best for your products? For more information, write MONSANTO CHEMICAL COMPANY, Inorganic Chemicals Division, 1700 South Second Street, St. Louis 4, Missouri.

MONSANTO
CHEMICALS AND PLASTICS
SERVING INDUSTRY...WHICH SERVES MANKIND

*Trade-mark Reg. U.S. Pat. Off.

New, safe way to restore old oil paintings makes FLOORKEEPING NEWS!

ALKATROL

CONDITIONER-CLEANER WITH AMAZING NEW Colordyne

brings floors' color back to life!

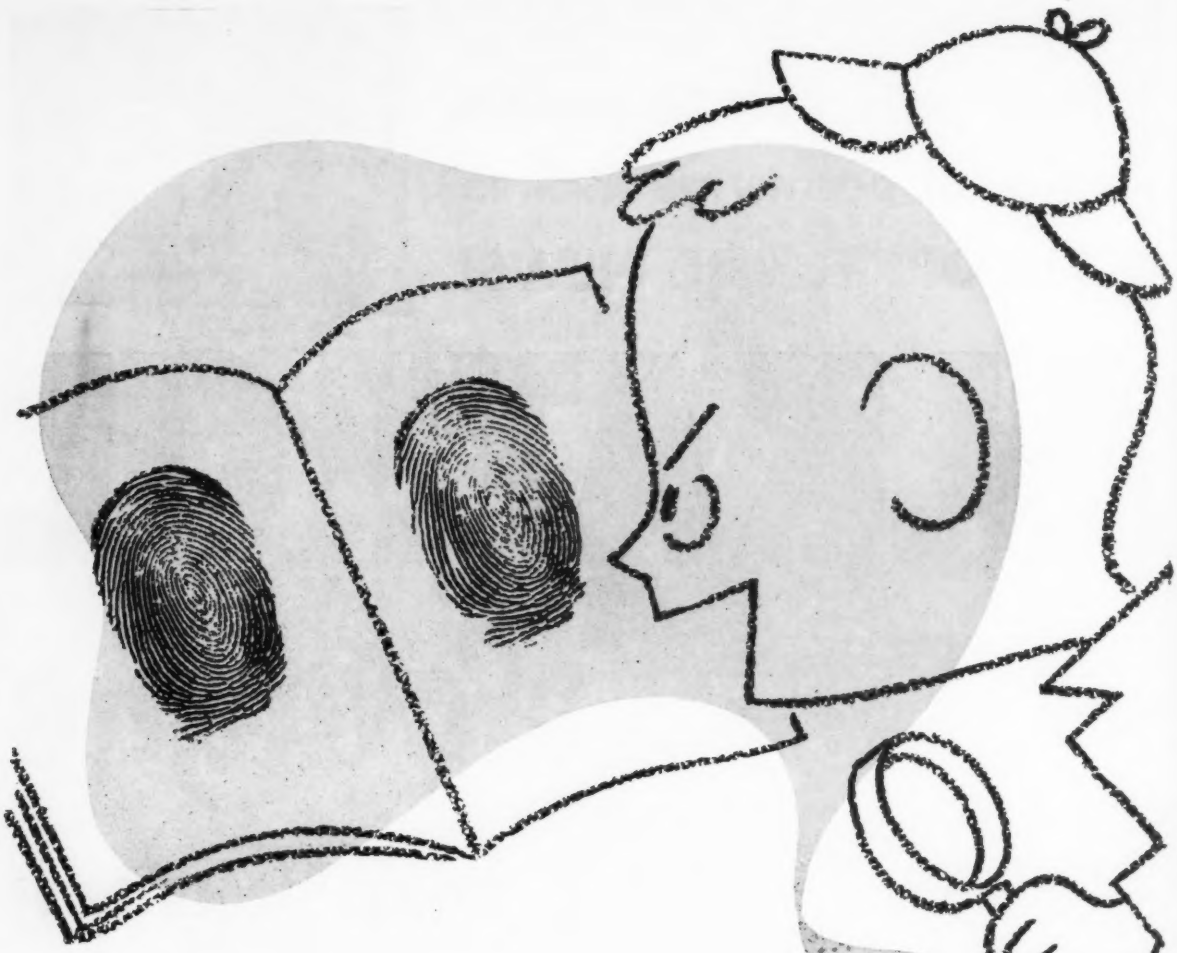
Now! This famous conditioner-cleaner features a new chemical dynamic—*Colordyne*. To make floors look their beauty-best, this conditioner-cleaner removes encrusted soil and dulling soap films effortlessly—allowing *Colordyne* to freshen the floors' original vivid color. Try it yourself and see how *Colordyne* magically enhances colors in your floor.

Listed by Underwriters' Laboratories, Inc. as anti-slip floor treatment material.

Colordyne now added to ALKATROL, ALKATROL with CHLOROPHYLL, and ALKATROL-3 DISINFECTANT Conditioner-Cleaner

CHEMICAL SERVICE OF BALTIMORE

HOWARD AND WEST STREETS • • BALTIMORE 30, MARYLAND



Why are these two fingerprints like **DREYER SYNTHETIC SCENTS?**

It's hard to tell one from the other. It's often as hard to distinguish between a Dreyer Floral Scent and the original natural flower odor it so successfully re-creates.

Dreyer Floral Essences seem to last even longer than the best odors Nature produces. They are notably more uniform, too—easier and more stable to work with, and plan with.

Produce quality perfumed lines for less, by using Dreyer Essences. Dreyer prices are fairly figured—to keep your everyday profits higher. See what Dreyer really can save you—send for good-sized samples today.

**for Essential Oils,
Aromatic Chemicals, Perfume Compounds**

P. R. DREYER Inc.

119 WEST 19th STREET, NEW YORK 11, N. Y.

It's time to LOOK AT ALL 12!

says Mr. fatty acid

You can always follow the market with the broad line of
ADM VEGETABLE FATTY ACIDS

FATTY ACID TYPE AND GRADE	PROTECTIVE COATINGS	SYNTHETIC RESINS	INKS	PUTTY AND CAULKING COMPOUNDS	METALLIC SOAPS	LIQUID SOAPS	WAXES AND POLISHES	INSECTICIDES AND DISINFECTANTS	LUBRICATING GREASES	COSMETICS	PHARMACEUTICAL
COCONUT Double-Distilled		X				X		X		X	
LINSEED											
Water White	X	X	X								
Regular	X	X	X	X	X	X		X			
SM-500	X	X	X	X	X	X		X			
SM-600	X	X	X	X	X	X		X			
Essential Unsaturated Free Fatty Acids											X
SOYA											
Water White	X	X	X								
Regular	X	X	X		X	X		X			
RO-4	X	X	X		X	X		X			
RO-10	X	X	X	X	X	X	X	X	X		
RO-11S	X	X	X		X			X			
MIXED VEGETABLE RO-8	X	X		X	X	X	X	X	X		
CORN-SOYA Double-Distilled				X		X	X	X	X		
CORN Double-Distilled				X		X	X	X	X		
COTTONSEED Double-Distilled		X			X		X	X	X		
CHINAWOOD	X	X	X								

Take the Scientific Shortcut
with **Archer fatty acids**

● Are you finding competition in the soap business a little more brisk today? Then it is, indeed, time to re-acquaint yourself with ADM's broad and complete line of vegetable fatty acids.

As the chart above indicates, you can have your choice of *twelve* specialized ADM acids ideally suited to soap making. Therefore, whether your primary interest at the moment is economy, or easier processing, or higher quality, you can always find your "best buy" in ADM's linseed, soya, corn, corn-soya, cottonseed, coconut or mixed fatty acids.

In addition to getting the most advantageous base price, you will find extra savings at ADM by *combined purchasing*. Order any combination of fatty acids and oils, in truckload, carload or tankcar shipments. Highest purity and unvarying uniformity are assured.

Want technical information? Mail the coupon at right.

ARCHER-DANIELS-MIDLAND CO.
600 ROANOKE BUILDING • MINNEAPOLIS 2, MINN.

Please send technical bulletin No. 78 describing advantages of ADM's vegetable fatty acids in soap making.

*Name*_____

*Company*_____

*Address*_____

*City*_____ *Zone*____ *State*_____

"SANITARY CHEMICALS"

by the late LEONARD SCHWARCZ

★ ★ ★ ★ ★

A practical 576-page book on formulation, testing, properties, history and effective uses . . . full coverage of labeling (with specimens), laws, regulations, etc. . . . for executive, salesman, plant man or chemist . . . in plain understandable language . . . an entirely new book. . . .

SUBJECTS COVERED: (28 Chapter headings)

Bacterial and Disease
Principles of Disinfection
Coal Tar Disinfectants
Cresol Compounds
Pine Oil Disinfectants
Hypochlorites
Quaternary Disinfectants
Disinfectant Testing
Deodorants
Man Versus Insects
Pyrethrum Insecticides
Rotenone Insecticides
Synthetic Insecticides
Livestock and Barn Sprays
Bedbug Liquids
Cockroach Control
Moth Preparations
Aerosols
Insecticide Testing
Rodenticides
Floor Waxes
Sweeping Compounds
Potash Soaps
Liquid Soaps
Detergents and Cleaners
Surface Active Agents
Labeling and Packaging
Laws and Regulations

MAC NAIR-DORLAND COMPANY
254 West 31st St., New York 1, N. Y.

Please ship me postpaid one copy "SANITARY CHEMICALS" by Schwarcz for which I enclose check for $.....

Name .....

Address .....

.....

.....

Stiff cloth binding — gold stamped
$8.00 in U.S.A.* — $8.50 elsewhere
Post paid
(*Add 3% sales tax if in New York City)

* * *

Owing to large number of individual book orders handled, these cannot be carried on open account. *Check must accompany order.* Book returnable for full credit in 10 days if not satisfactory.

MAC NAIR-DORLAND COMPANY
Publishers
254 West 31st St., New York 1, N. Y.

6=10 when it's DRYMET*

the economical detergent silicate

Sixty pounds of DRYMET—*anhydrous* sodium metasilicate—will do the same amount of work as one hundred pounds of pentahydrate sodium metasilicate! You get approximately two thirds more chemical value in DRYMET, yet the price is less than one fourth higher at the producing factory!

DRYMET contains no water of crystalization. DRYMET is more economical to use on the basis of Na_2O (alkalinity) and SiO_2 (silicate) than *any other* type of anhydrous or hydrated detergent silicate.

Send for DRYMET File Folder containing complete technical information.

HEAVY CHEMICAL DEPARTMENT

If you are compounding with detergent silicates, investigate DRYMET for higher concentrations and longer mileage in such products as:

1. **Floor Cleaners**
2. **Laundry Products**
3. **Metal Cleaners**
4. **Dairy Cleaners**
5. **Dishwashing Compounds**
6. **General Purpose Cleaners**
7. **Soap Builders**
8. **Paint Cleaners**
9. **Paper De-inking Compounds**

If you are using detergent silicates directly in your operations, investigate DRYMET for:

1. **Reductions in product costs**
2. **Reductions in freight costs**
3. **Reductions in storage costs**
4. **Reductions in handling costs**
5. **Reductions in labor costs**

*Reg. U. S. Pat. Off.

Cowles CHEMICAL COMPANY

7016 EUCLID AVENUE • CLEVELAND 3, OHIO

Starting point for quality products

Quality products begin with quality ingredients. That's why Nialk Chemicals are used today in so many exacting applications.

for example...

NIALK CAUSTIC SODA: New and improved techniques for the production of toilet and detergent soaps demand caustic soda of highest purity and uniformity. Thanks to modern production methods, plus strict quality control, NIALK Caustic Soda meets this demand, and hence is used today in many of the finest soaps produced.

Superior, dependable performance in applications such as this has earned for NIALK chemicals the confidence of many American industries.

NIAGARA ALKALI COMPANY

60 East 42nd Street, New York 17, New York

Nialk®

- LIQUID CHLORINE
- CAUSTIC POTASH
- CARBONATE OF POTASH
- PARADICHLOROBENZENE
- CAUSTIC SODA
- TRICHLORethylene

NIAGATHAL® (TETRACHLORO PHTHALIC ANHYDRIDE)

. . . in brief

as the editor sees it . . .

GLYCERINE . . . With each passing year, the soap kettle becomes less of a factor in the glycerine situation. Declining soap production has meant less glycerine from this source. Fatty acid manufacture as a glycerine producer has remained fairly constant. Synthetic glycerine output has become the key to the future. The extent to which synthetic glycerine production expands over the ensuing years obviously will be determined by price and demand. A large and reasonably expanding demand appears well assured for some time to come. Price? On this hang the economics of the entire production and marketing situation. How much will it cost to produce? In what price range will demand continue to expand?

With two new synthetic glycerine ventures in the offing, the problem of the soaper with glycerine to sell becomes more complicated. Even if soap production drops to low ebb, there probably always will be a minimum of one hundred million pounds of fat-derived glycerine seeking a market. Will this set the market or will synthetic costs be the determining factor? Will soapers ever again run their soap lye down the sewer because it does not pay to recover the glycerine? They did this back in the early nineteen thirties.

It seems that glycerine is destined commercially to become another synthetic organic chemical as contrasted to the naturally-derived product of yesteryear. Will the natural product meet the same fate as others which have tangled competitively over the years with products of synthesis? We wish that we knew,—also the answer to some of the other questions, — but we've misplaced our crystal ball.

WHITE AS SNOW . . . You writers of advertising copy for soaps, cosmetics, chlorophyll products, cigarettes, *et al*, lift up your heads. Be no longer abashed at the censure heaped upon you by cruel critics. In our book, you suddenly have become as pure as a lily, white as the driven snow. For we have just gone through a week or so of reading the newspaper advertisements announcing the new 1954 automobiles.

Looking back a year or so, we seem to remember that we read much of the same slush about the car which we bought then. But, its windshield wiper wouldn't wipe, its doors and windows rattled, the body squeaked, and the brakes never stayed adjusted. Just like the one we bought five years ago, and ten years ago, about which the copy writers wrote the same mush.

Some time ago we suggested that each soap and cigarette advertising copy writer should have an honest chemist stand at his elbow while he writes. (Please note that we specified an *honest* chemist.) After reading all this 1954 automobile advertising, we now feel that these chemists can be fired or sent back to the laboratory.

* * * * *

DDT CRITICS . . . Defending DDT and other insecticides as the saviour of five million lives and with having prevented 100 million cases of serious illnesses, Dr. P. J. Chapman, Cornell entomologist, recently pointed out that sensational charges of insecticide poisoning are long on claims, short on fact. In answer to demands that chemical insecticides be banned, he cited known accidental deaths in 1949 from aspirin, 70, from lye and similar

chemicals, 87, from petroleum, 117, sleeping pills, 466, and alcohol, 2,433. Should these products be outlawed? And it might be added, no known death from DDT has yet been recorded.

That the fault for wide publication of these sensational charges against DDT and other insecticides lies right with our daily press, there is no doubt. That the newspapers could find out the truth easily and quickly, there is likewise no doubt. But, do they want to? Wouldn't this spoil sensational "news?" The yappings of these headline-seeking doctors make great copy, sell papers. While the editors prate of the "great truth" and freedom of the press, they play footsies with obvious phoneys, mislead the public. That this DDT thing has continued now, off and on, for over two years based on the most irresponsible of testimony is in our opinion a sad commentary on the present state of newspaper journalism.

* * * * *

DETERGENT BAR . . . While the rise of synthetic detergents for clothes and dish washing has been spectacular, the same cannot be said for the non-soap toilet bar. As we see it, the reasons for this apparent lack of marketing success thus far are threefold, (1) price, (2) all the "bugs" have not yet been worked out, (3) competition from regular toilet soaps.

As long as soapers put out the fine piece of soap for toilet use which most of them are marketing today, they make the success of the synthetic bar relatively more remote. A cake of good toilet soap at less than half the price of a synthetic bar presents a high hurdle indeed. And modern toilet soaps do not present as great a hard water problem as do their laundry counterparts. But even if they did, the average housewife will think twice before spending 25 cents for a detergent bar. She has been educated to low prices for high quality, well perfumed toilet soaps.

Not all the road blocks for the non-soap bar are economic. Obviously, there are physical problems yet to be solved. The synthetic bar is going to have to meet the all-around satisfactory performance of toilet soap, — and at a competitive price, — before it meets full public acceptance. Just when that will be is anybody's guess.

OUTLOOK . . . If all the loose ends of the fat markets are tied together and examined, the long-range view might show a continuation of stronger prices through the balance of 1954. The recent rise in tallow and grease prices did not come out of thin air. Large tonnages disappeared from the world markets, much going abroad including behind the Iron Curtain to make up for short production in 1953. The cattle feed program can take another sizable chunk for it is said that the feed people are interested in tallow up to ten cents. These and other factors should add up to a stronger fat market for some time to come.

Now, we know that the price rises of the past few months have been like the breath of spring to many a renderer. But, where do they leave the fellow who still runs a soap kettle? Offhand, we would surmise, "behind the eight ball." At relatively even prices, soap's competitive position in relation to the synthetics has not been too good. In the face of a four to five cent tallow market, the synthetics continued to make inroads into soap sales. With an eight-cent tallow market and comparable soap prices, this trend could be accelerated. Its share of the total detergent markets by the end of 1954 could be down to forty percent. These are the cold, hard facts staring every soap factory squarely in the face. Is it any wonder that soapers who don't have a synthetic product or two in their line are becoming rare birds?

* * * * *

AEROSOLS BY MAIL . . . With the recent issuance of regulations covering the shipment of conventional aerosol packages by mail, a long battle has ended successfully for the industry. Previously, the Post Office Department did not permit the mailing of aerosols. Now standard units may be mailed subject to certain safety restrictions, much to the relief of the pressurized package people.

Thanks to the persistent efforts of the Chemical Specialties Manufacturers Association, and as the result of much research by its Special Post Office Policy Committee, the ban on sending aerosol packages by mail has been lifted. It was a job well done. Now, it is up to every aerosol mailer to adhere rigidly to the regulations and in no way jeopardize the new-found freedom.

as the reader sees it...

Aerosol Filling Unit

Editor:

Being subscribers to *Soap and Sanitary Chemicals,* we should like to ask for some information regarding the article on "Perfuming Aerosols" by Herbert Kainik, which appeared in the October issue.

On page 48 Mr. Kainik speaks of a "new machine, now in rapid development, which will not require any refrigerating of the gas such as is now needed." Mr. Kainik certainly would not mention such development if he had not definite knowledge that this new machine would shortly be on the market. We, therefore, should feel greatly obliged if you would let us have more details about this new procedure of filling, and, of course, give us the address of the manufacturer of the machine, enabling us to contact him directly.

Tubag A.-G. Für
Metallverarbeitung,
Basel,
Switzerland

The equipment described by Mr. Kainik is made by Oil Equipment Laboratories, Inc., 600 Pearl St., Elizabeth, N. J. The new device was described and illustrated in an article, which appeared on page 149 of the August issue of Soap. Ed.

— ★ —

Antibiotics and Pesticides

Editor:

In the issue of December last of "Soap and Sanitary Chemicals" the question was raised whether there is a connection between antibiotics and pesticidal activity. Enclosed you will find my remarks about the above-mentioned subject for your readers.

Dr. R. Fischer.
Regina General Hospital,
Munroe Wing, Research
Laboratory,
Regina, Sask, Canada

Let me suggest that the question be put in the following way: Is there a relation between insecticidal and antibacterial activity? The answer is yes (K. Okazaki, K. Matsui & H. Katoo: *J. Pharm. Soc.,* Japan, *71,* 1377 (1951)).

Crystal violet was found to be the most penetrating reagent of the insect cuticle (S. Mukerji & S. N. Chatterjee: *Nature* (London), *171,* 119 (1953)); crystal violet, however, is strongly sorbed (high affinity) by Gram positive bacteria and is consequently also a bactericidal agent of these germs. Moreover, it was shown that the higher the bactericidal activity of e.g. basic (cationic) compounds (crystal violet, quaternary disinfectants, streptomycin, etc., etc.) the higher their affinity to (wool) protein (R. Fischer, S. Seidenberg and U. P. Weis, *Helv. chim. acta, 32,* 8 (1949); R. Fischer & S. Seidenberg, *Science, 114,* 265-266 (1951); R. Fisher and P. Larose, *Canad. J. Med. Sci., 30,* 86 (1952); Idem, *J. Bact., 64,* 435 (1952); R. Fischer, *Manufacturing Chemist,* 1953, p. 195; Idem, *Manufacturing Chemist,* 1953, p. 382).

This might be indicative of a relationship between bactericidal as well as insecticidal activity on the one hand and affinity of basic compounds toward the protein component of receptors involved in insecticidal and bactericidal action, on the other.

That fungistatic, fungicidal, insecticidal and miticidal properties are possessed by certain antibiotics *(Seifen-Oele-Fette-Wachse,* March 18, 1953) seems to fit in the above-mentioned relationship.

Moreover: methylene blue another basic dyestuff, structurally akin to phenothiazine, is capable of staining, among other things, the ends of living nerves; it is an analgesic, an antimalarial and an antiseptic; phenothiazine on the other hand, is an anthelmintic and base substance of drugs with antihistaminic, fungicidal, adrenolytic and antiemetic activity; in addition these compounds cause a fall in body temperature, display a ganglionic blocking as well as a curarizing action and even some quinidine-like action *(Brit. J. Pharmacol., 3,* 246 (1948); *4,* 197 (1949)).

Hence it seems that compounds displaying a high affinity to protein, exert *various* biological activities according to the degree of specificity they display toward the available receptors, some of them apparently containing a protein component structurally related to (wool) protein (R. Fischer: unpublished data).

". . . so I told Joe to add a little hydrogen in the crutcher."

— ★ —

Cowles Expands Plant

Cowles Chemical Co., Cleveland, O., recently announced that construction of a 20,000 square feet addition to its plant at Skaneateles Falls, N. Y., has been started. Increased warehouse space, a new plant office, and a control laboratory will be housed in the building which is scheduled for completion in mid-1954.

AASGP president George A. Wrisley of Allen B. Wrisley Co., Chicago, at microphone during his address of welcome and review of the year. C. S. Campbell of J. B. Williams Co., Glastonbury, Conn., newly elect president of the association is at left, and Dr. O. Glenn Saxon of Yale University and E. W. Wilson of Armour & Co., Chicago, retiring mid-western vice-president, are seated at right of Mr. Wrisley.

Soap Assn. Elects C. S.

PREDICTIONS that fats and oils would be in good supply in 1954, that glycerine demand would remain high, that consumption of both soaps and detergents would continue at about the 1953 levels and that general economic conditions would closely parallel those of last year were made during the 27th annual convention of the Association of American Soap & Glycerine Producers, held at the Waldorf-Astoria Hotel, New York, Jan. 26-28.

Other highlights of the meeting included a review of the year's activities by retiring president George A. Wrisley of Allen B. Wrisley Co., Chicago; a report on soap and detergent sales in food stores in 1953; a prediction that increasing amounts of tallow and grease would find their way into animal feeds, and the election of officers.

Charles S. Campbell, president of J. B. Williams Co., Glastonbury, Conn., was elected president of the Association of American Soap & Glycerine Producers, succeeding George A. Wrisley, who completed a two year term as head of the organization. Mr. Campbell formerly served as vice-president for the east, and is succeeded in this post by Jervis J. Babb, president of Lever Brothers Co., New York, a director for the past year. Eugene A. Moss, vice-president of Swift & Co., Chicago, was elected vice-president for the middle west to succeed E. W. Wilson of Armour & Co., Chicago. A new far west vice-president, A. K. Forthman of Los Angeles Soap Co., was elected succeeding Albert Haas of Newell Gutradt Co., San Francisco. N. S. Dahl of John T. Stanley Co., New York, continues as treasurer, a post he has held for over 25 years. M. A. McManus of Lever Brothers Co. was reelected as assistant treasurer and Roy W. Peet continues as secretary and association manager.

Dr. Daniel H. Terry of Bon Ami Co., New York, left, below and E. O. Morton of Westinghous Electric Corp., Mansfield, O., speakers at the Jan. 28 morning session.

The board of directors of the A.A.S.G.P. is now composed of the officers listed above, plus the following: E. W. Wilson of Armour & Co., Chicago; C. L. Weirich, C. B. Dolge Co., Westport, Conn.; G. A. Wrisley; Neil H. McElroy, Procter & Gamble Co., Cincinnati; R. S. Carmel, H. Kohnstamm & Co., New York; Melvin Fuld, Fuld Brothers Co., Baltimore; J. H. McConnell, Colgate-Palmolive Co., Jersey City, N. J.; E. B. Osborn, Economics Laboratory, New York; A. W. Schubert, Emery Industries, Inc., New York.

New directors elected at the meeting are A. K. Forthman of Los Angeles Soap Co., and John L. Christian of Monsanto Chemical Co., St. Louis.

The first feature of the 3-day convention, registration for which ran close to 1000, was the meeting of the Fatty Acid Division of the association on Jan. 26. A business meeting of the membership took place the morning of the 26th, and was followed by a group luncheon and an afternoon discussion session. F. B. Patton of Armour & Co., Chicago, presided over the luncheon which heard Taylor Grant, radio news commentator, report on the news of the day. The first speaker at the afternoon session, was H. E. Longenecker, dean of the graduate school of the University of Pittsburgh, who discussed "The University's Role in Fat and Oil Research." In his talk, Mr. Longenecker advocated a continuous program in at least one university of research and teaching in the natural fats and oils and their derivatives. The cost of such a program was put at one million dollars on an endowment basis. While the fats and oils field has attracted outstanding scientists, no sustained program can be

Meets; Campbell

Speakers at the Fatty Acid Division meeting the afternoon of Jan. 26, above, left to right, are: Dr. Eugene McCauliff of Glyco Products Co., Brooklyn; Dr. Daniel Swern, Eastern Regional Research Laboratory, Philadelphia, and Ralph Berger, Blaw-Knox Co., Pittsburgh.

assured without such a development, Mr. Longenecker declared.

"Trends and Factors Affecting Fatty Acid Usage in Alkyd Resins," the subject of the next paper by K. A. Earhart of the Barrett Division of Allied Chemical & Dye Corp., New York, also contained a list of four areas in which research projects might be conducted to improve technical knowledge of fatty acids for use in alkyds.

The next speaker, Dr. Eugene McCauliff of Glyco Products Co., Brooklyn, in discussing "Trends Affecting Fatty Acid Usage in Emulsifiers" pointed out that as synthetic detergent" usage draws away from soap on rising consumption, the consequent increasing availability of many fats, including tallow, due to either direct or indirect influences should serve further to expand the use of emulsifiers derived in substantial part from fatty acids, because of reasonable prices and ready availability of these materials. This picture should be coupled with, and beneficially tempered by, the steadying influence of rising usages for fatty acids in emulsifiers through the new products which recently have come to the fore."

"Plasticizers from Fats," discussed by Daniel Swern, of the Eastern Regional Research Laboratory, U. S.D.A., Philadelphia, was the next paper. In it Mr. Swern pointed out that "one of the largest and fastest growing consumers of organic chemicals is the synthetic plastics industry. Many synthetic plastics, however, require modification to make them suitable for applications in which flexibility, toughness and elasticity over a wide range of temperatures are prerequisites. The main method for modifying the properties of synthetic plastics is by the addition of plasticizers."

The final paper of the Fatty Acid Division meeting dealt with the "Small Scale Production of Fatty Acids and Glycerine" by Ralph Berger process engineer, Chemical Plants Division, Blaw-Knox Co., Pittsburgh. In his paper Mr. Berger discussed continuous fat splitting, continuous fatty acid distillation, bleaching of fatty acids and glycerine recovery. Six combinations of processes and materials were analyzed.

The final scheduled event of the first day of the meeting was a cocktail party and reception in the Perroquet Suite, for which *Soap & Sanitary Chemicals* was host.

Wrisley Reviews Year

THE official opening of the soap meeting took place on the morning of Jan. 27 at a session presided over by C. S. Campbell of J. B. Williams Co., who was subsequently elected president of the association. Mr. Campbell introduced George A. Wrisley of Allen B. Wrisley Co., Chicago, president of AASGP, who presented his address of welcome and review of the year. Mr. Wrisley pointed out that 1953 had not been a particularly exciting year for the association, which now has 175 active members. He reported the closing of the association's Washington, D. C. office, headed by Frank W. Luther, who has opened his own public relations firm in the nation's capital. Mr. Wrisley also mentioned the Federal Trade Commission action against the Philip Morris cigarette company for claims regarding the use of glycerine substitute in Philip Morris cigarettes. This case has not been settled yet.

Preliminary figures on soap and synthetic detergent sales (at plant) for 1953 were given by Mr. Wrisley as follows: total sales of both soaps and synthetic detergents

Industrial Soap Division meeting, presided over by C. L. Weirich of C. B. Dolge Co., Westport, Conn., standing, with speakers R. F. Huntley, president Cowles Chemical Co., Cleveland, left, King Whitney and E. B. Osborn, president of Economics Laboratory, New York, seated at right.

John W. McCutcheon, New York consultant, top left, with Dr. J. E. Magoffin of Eastman Chemical Products, Inc., New York, speakers on the fat and oils panel during the morning session, Jan. 28. Lower photo shows, left to right, Stanley Ross, Pneumatic Scale Co., N. Quincy, Mass., Donald Deskey of the New York consulting firm bearing his name, Dr. A. B. Hersberger, Atlantic Refining Co., Philadelphia, and W. E. Sooy, Gardner Board & Carton Co., Middletown, O., participants in the panel on packaging.

amounted to 3,510,761,000 pounds, valued at $745,877,000. Soap sales alone in 1953 totaled 1,643,909,000 pounds, worth $320,548,000, with detergent sales for the same period amounting to 1,866,852,000 pounds, valued at $425,000,329. Liquid soap sales in 1953 were put at 39,976,000 pounds, worth $6,985,000, and liquid synthetic detergents sales were 94,665,000 pounds, valued at $43,952,000.

Soap and synthetic detergent sales trends in food stores in 1953 established new highs both in terms of tonnage and on a dollar volume basis, according to Philip J. Stomberg, vice-president of A. C. Nielsen Co., Chicago, the next speaker at the session. A complete report of Mr. Stomberg's paper will appear in the March issue of *Soap & Sanitary Chemicals*. Food store dollar and tonnage sales continued to expand in 1953, Mr. Stomberg pointed out. The expansion in dollar volume was not as great as that reported in 1952, although tonnage sales showed about the same rate of gain as in the previous year. Food prices averaged slightly lower than in 1952. Further growth in food store sales appears indicated for 1954.

Food store sales of soaps and synthetic detergents combined established new highs in 1953, with synthetic detergents widening their share of the total still further, Mr. Stomberg reported. He also explained that consumer promotions, couponing, special offers, reduced prices, etc., can contribute materially under certain conditions. However, indiscriminate use is to be avoided because consumer promotions per se do not always produce results justifying the effort.

The general economic outlook for 1954 is excellent, according to Dr. O. Glenn Saxon, professor of economics at Yale University. "The United States will enjoy its second best year in history," Dr. Saxon said, adding that "national income may hold close to the 1953 record year, although there will be declines of moderate proportions in certain lines." Lower taxes and lower prices may expand personal expenditures, Dr. Saxon indicated.

A review of the cleanliness promotion activities of the association by E. W. Wilson, chairman of the Cleanliness Promotion Committee, was the final feature of the morning session. Mr. Wilson indicated that the soap industry had received $10,000,000 worth of publicity for the $60,000 it has expended for its work in this direction. He showed slides of various clippings from newspapers, magazines and radio and television releases which had been broadcast to show how effective the cleanliness promotion had been. As to future plans for the cleanliness program, the board had approved more activity in the field of public health, with the possible hiring of a consultant in the field of sanitary engineering. Clarence W. Classen, chief sanitary engineer of Illinois, had been consulted with regard to future programs and had recommended greater activity in the field of public health or increased work in the school field, with programs designed to train children to appreciate cleanliness.

Features of the group luncheon, Jan. 27, included a brief talk by Martin Agronsky, radio news commentator, the presentation of the three glycerine research awards and an eye-witness account of life in Moscow by Eddy Gilmore, Associated Press correspondent.

E. W. Colt, Armour & Co., Chicago, and chairman of the Glycerine Division Research Committee, presented a glycerine research award of $1,000 to Dr. Erich Baer, professor in the Banting and Best Department of Medical Research, University of Toronto, Ont., Canada, first award winner. The $300 second award went to Drs. Lewis I. Gidez, assistant medical biochemist, medical department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, N. Y. and

Manfred L. Karnovsky, assistant professor of biological chemistry, Harvard University Medical School, Cambridge, Mass. Albert C. Nuessle, head of the textile applications laboratory of Rohm and Haas Co., Philadelphia and Russell F. Crawford, Jr., Sharon Hill, Pa., won the $100 third award.

Glycerine Outlook

AMONG the highlights of the Glycerine Division's meeting held the afternoon of Jan. 27, was a paper entitled "The Economics of Glycerine—Today and Tomorrow" by E. S. Pattison, division manager. Mr. Pattison foresaw a balanced and stable supply situation for glycerine in 1954, on the basis of 1953 statistics. Domestic output of crude and synthetic glycerine during 1953 totaled approximately (on a 100 percent basis) 218 million pounds or 30 million pounds above the 1952 level, despite reduced soap production. About one quarter of this total was synthetic production and the gain in this field, as compared with 1952, was about 18 to 20 million pounds. However, domestic glycerine from fats seems to have risen some eight to 10 million pounds as well. This surprising rise in the face of falling soap production, may be ascribed to two factors: (1) Use of better grade fats in soap making and a proportionate increase, relative to total pounds of soap produced, of higher grades where glycerine yields are at a maximum. (2) Greater production of glycerine as a co-product of fatty acids and fatty alcohols. In addition to domestic production of 218 million pounds, imports of glycerine amounted to approximately 30 million pounds in 1953. Year-end stocks, estimated from government figures, are equal to three months consumption or approximately 60 million pounds. Glycerine usage in 1953 has also outpaced preceding years with an estimated total of 225 million pounds, while so-called substitutes showed declines.

According to a 1950 survey at least one third of all glycerine went to the alkyd-resin and protective coatings industry, which is probably equally true today. Other markets, particularly cellophane, tobacco, drugs, and toiletries, have been relatively stable since 1950. Glycerine use in explosives is perhaps declining with the increased use of other polyols and in military explosives with defense curtailment. Basically, we have about 60 percent of all glycerine going to small and relatively stable markets and about 40 percent going into alkyd resins and other chemical uses in which the swings with business conditions are relatively great.

Three important questions will determine the fate of glycerine in the years ahead: (1) What will be the trend of glycerine produced from fats, in the light of soap and fat-based detergents versus petroleum-based synthetic detergents? (2) What will be the extent and effect of synthetic glycerine production? and (3) How will the foreign supply situation for glycerine affect the domestic picture?

Mr. Pattison appealed for greatly increased research expenditure and for more promotion effort by the industry to insure the future of the market.

E. G. McDonough, Evans Research and Development Corp., New York, reported on "Trends in Toilet Goods Affecting the Use of Glycerine." After touching upon the importance of a stable supply to maintain glycerine's position in the cosmetics field against other polyhydric compounds, the speaker pointed out the close relationship of social trends and cosmetics use. New products are opening up new applications of glycerin as an ingredient of formulations as well as in packaging, labelling and other auxiliary materials.

C. S. Miner, Jr. of Miner Laboratories, Chicago, spoke on "Glycerine Research Activities in 1953" with special emphasis on glycerine's use in the preservation of living cells by freezing and low-temperature storage. One example is the preservation of red blood cells, another the preservation of bull semen for artificial insemination of cattle. A moving picture was shown to illustrate this latest field of application.

Fred Messner of G. M. Basford Co. showed samples of glycerine advertising in the form of tape recordings in which well known products "Speak for Themselves." He stressed the importance of avoiding generalities and of being specific for convincing advertising.

Jack Craig of G. M. Basford Co., New York, outlined the program of glycerine promotion for 1954.

A panel discussion of the selection, training and compensating of salesmen, presided over

(*Turn to Page* 89)

A. G. Tunstall of Pennsylvania Salt Manufacturing Co., Philadelphia, left, and W. I. McNeill, New York management consultant, right, shown addressing Industrial Soap Division meeting Jan. 28.

Essential Features of a Valid Patent

By

Albert Woodruff Gray

AN application made a few years ago for the patent for a germicidal washing and toilet soap described the invention as, "Germicidal soaps containing halogenated dihydroxy diphenyl methanes."

The U. S. Patent Office refused these inventors a patent and an appeal was made to the United States Court of Customs and Appeals. In rejecting this patent application the lower court had said, in part,

"The only completely effective germicidal soaps were those containing mercurial germicides. Such soaps had the drawback of a cumulative toxic effect of the mercurial compound. It had long been recognized that a germicide soap with a phenolic germicide present in minor proportion was highly desirable but that all knowledge at the time of the filing of this case indicated that such a composition was either ineffective or but poorly effective and that the general conclusion of those working in the field was that phenolic germicides would not function properly when admixed with soap in minor proportions.

"Under the situation thus described it is thought that this industry clearly teaches the desirability of incorporating a minor proportion of a phenolic compound in a soap to render it germicidal. This being the case no invention whatever is involved in trying out what the industry clearly teaches."

When this decision came befor the Court of Customs and Appeals it was reversed and in granting the patent application that court said,

"We have no doubt that the applicant for this patent by the use of the particular compound defined in the claims, has produced a germicidal soap—that is, a 'composition of matter,' to use the statutory phraseology—which is entirely new and very useful. We think the product is the result of invention.

"We are satisfied that the applicant for this patent presents in his application not only a useful composition of matter but a composition which, although long desired, had not been produced until these applicants produced it. Their production may have followed many experiments, but we have never understood that experimentation, study and labor, of themselves, destroy inventiveness."

The provisions of the present Patent Law, enacted in 1952, relating to inventions that may be patented, is, "Whoever invents or discovers any new or useful process, machine, manufacture or composition of matter, or any new or useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title."

The patent for this germicidal soap, which was the subject of this decision could only be granted if this discovery was, according to the statute, a new and useful invention. By those three words—"new," "useful," "invention"—the courts determine whether the granting of a patent for the protection of a discovery from use by others than the discoverer, is justified under the statute.

A decision by the Federal Circuit Court of Appeals a few years before in an action brought for an infringement of a patent met the defense by the alleged infringer that the invention was not within the provision of the patent law and that as a consequence the patent was not valid.

Holding in this instance that the invention did not justify the issuance of the patent and consequently that there had been no infringement, the court said of this provision of the law,

"Generally speaking, with reference to the subject matter permitted to be patented, there are four ultimate facts which must exist before an invention is patentable—authorship, ownership, novelty, not as a result of mere mechanical skill, and utility. If they exist concurrently a disclosure is patentable; if one is lacking, it is not patentable. This must be true, not because the finder of facts says so, but because the statute says so."

In another similar action a few years later the same defense was interposed. There the Federal court said,

"Invention does not connote patentability. True, all patents are, or ought to be, based upon inventions or discoveries, but all inventions or discoveries are not patentable. Of course, if there be no invention or discovery there can be no patentability, but there may be invention or discovery which is not patentable. Again, the invention or discovery must be new to the one making it, otherwise he would be a copier rather than an inventor.

"If the disclosure is new to him, he is an inventor or discoverer, regardless of the fact that others may have invented or discovered the same thing. However he would not be entitled to a patent unless it was established that among other facts, including utility, he was the first inventor or discoverer.

"Inventions and utility are

questions of facts. Patentable invention is a question of law because the statute defines what is patentable and it does not define the words 'invention' or 'discovery.'"

In another action of this character the court emphasized the two other essentials set up by this statute, novelty and usefulness.

Novel and Useful

"IT has been many times held that for a patent to be valid the owner of the patent must have invented or discovered a new and useful art, machine, manufacture, or composition of matter, or a new and useful improvement thereof, not known or used by others prior thereto; that there must be a novelty and utility and originality. The very act of invention must be a discovery and application in a new and useful way of something not previously known."

Then, in reference to the particular discovery that was the subject of this action, the court added, "It is clear that there is nothing new in the way of invention in the disclosure in question. There is nothing in the nature of discovery, authorship or novelty. The most that can be claimed is a greater utility. The subjects of the two patents in question are devoid of discovery, authorship or novelty and their improvement, if any, in utility is very slight. The ruling necessarily follows that the two patents are invalid."

An absurd attempt to sustain the essential feature of invention against the background of these authorities occurred two years ago in litigation involving the familiar idea of extending the cashier's counter in self service grocery stores and using a tray between guiding rails by which the cashier pulls the groceries of the succeeding purchaser to her place at the cash drawer.

The Supreme Court once said of the legal interpretation of the word "invention" in the Patent Law that, "under the statute the device must not only be 'new and useful' but it must also be an 'invention' or 'discovery.' If an improvement is to obtain the privileged position of a patent more ingenuity must be involved than the work of a mechanic skilled in the art. Perfection of workmanship however much it may increase the convenience, extend the use or diminish expense, is not patentable. That is to say, the new device, however useful it may be, must reveal the flash of creative genius, not merely the skill of the calling."

Of this "flash of creative genius" held to be an essential of a valid patent, the Federal District Court said in reference to this grocery device, "it increased the efficiency of each grocery checking counter at least thirty percent. What more evidence of the flash of creative genius could be required?"

This decision the Federal appellate court affirmed with the comment, "The device satisfied an old and recognized want and hence 'invention' is to be inferred rather than the exercise of mechanical skill."

A year later the Supreme Court of the United States in finally determining the litigation involving the patent of this grocery store contraption held it void for lack of invention and laid down an enduring definition of this feature of invention that is a vital factor in the patenting of discoveries in the soap or any other industry.

"Every patent is a grant of a privilege of exacting tolls from the public. The framers plainly did not want these monopolies freely granted. The invention to justify a patent, had to serve the ends of science—to push back the frontiers of chemistry, physics and the like; to make a distinctive contribution to scientific knowledge. That is why through the years the opinions of the court commonly have taken 'inventive genius' as a test.

"It is not enough that an article is new and useful. The Constitution never sanctioned the patenting of gadgets. Patents serve a higher need—the advancement of science. An invention need not be as startling as an atomic bomb to be patentable. But it is to be of such quality and distinction that the masters of the scientific field will recognize it as an advance."

This same court, many years earlier, had said in a decision holding a patent void for lack of novelty and usefulness in which was laid down a rule by which inventions of the character justifying a patent under the statute, are distinguished from those of ordinary skill and workmanship, that has been followed as an authority for nearly three quarters of a century,

"The process of development in manufactures creates a constant demand for new appliances which the skill of ordinary workmen and engineers is generally adequate to devise and which, indeed, are the natural and proper outgrowth of such development.

"Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention somewhat above ordinary mechanical or engineering skill is

Four facts must exist before an invention is patentable: authorship, ownership, novelty, not as a result of mere mechanical skill and utility, Court holds.

distinctly shown, is unjust in principle and injurious in its consequences.

"The design of the patent laws is to reward those who make some substantial discovery or invention which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of these laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufacture.

"Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business to watch the advancing wave of improvements and gather its foam of patented monopolies, which enable them to lay a heavy tax upon the industries of the country, without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions and concealed liens and unknown liabilities to lawsuits and vexatious accountings for profits made in good faith."

A few years before this same court said of mere improvements which did not, merely from that fact, entitle their discoveries to patents,

"Patented improvements which are not new and useful or which do not require any invention or discovery to make the same as compared with what existed or was in use before, may be declared invalid by the courts.

"Old processes are sometimes applied to new subjects, and where that was so, in a case which did not require the exercise of the inventive faculty, and without the development of any idea which could be deemed new or original in the sense of the patent law, it was held that the supposed improvement was not the subject of a patent and that the courts may take notice of a thing in common knowledge and use of the people throughout the country.

"Meritorious inventors are entitled to protection, but it is settled law that a mere carrying forward of an original patented conception, involving only change of form, proportions or degree or the substitution of equivalents doing the same thing as the original invention by substantially the same means, is not such an invention as will sustain a patent, even though the changes of the kind may produce better results.

"Judge Story held, many years ago, that the mere application of an old process, machine or device to a new use was not patentable; there must be some new process or some new machinery to produce the result, in order that the supposed inventor may properly have a patent for the alleged improvement."

Measured by these standards and the three essentials of the statute, invention, novelty and utility, the Board of Patent Appeals rejected some years ago an application for a patent for a soap container.

Soap Container Patent

THIS device, as it was described by the court, was a solid, chamberless sponge when empty, "made by cementing the edges of two pieces of rubber, the flat sides of which fit together. A part of one end and the center of the two pieces are not cemented together, resulting in an opening for the soap to pass through and into the center. A receptacle for the soap in the interior of the sponge is thereby formed. As the soap becomes smaller the elastic walls come nearer together, and when the soap is entirely removed, the sponge article as a whole is still usable and does not collapse. With this article very small pieces of soap can be used."

This patent application was rejected in the first instance on the ground that the invention was covered by earlier patents. The inventor appealed to the Court of Customs and Appeals which reversed the lower court and granted the patent with the statement that no earlier patents completely anticipated this invention; that the lower court had held that it did not require invention to modify the inventions already patented. In conclusion the court said, "We are of the opinion that the improvements made by this applicant are useful and were not obvious and that it required more than mechanical skill of one skilled in the art, to make such improvements."

In its decision many years ago of an application for a patent for a lead pencil equipped with a rubber tip as an eraser, the Supreme Court summarized the limits of the protection by the Patent Law of discoveries and inventions.

"An instrument or manufacture which is the result of mechanical skill merely, is not patentable. Mechanical skill is one thing; invention is a different thing. Perfection of workmanship, however much it may increase the convenience, extent, use or diminish expense, is not patentable.

"The distinction between mechanical skill, with its conveniences and advantages, and inventive genius, is recognized in all cases. The combination, to be patentable, must produce a different force or fact, or result in the combined forces or processes from that given by their separate parts. There must be a new result produced from their union; if not, it is only an aggregation of separate elements.

"An instance and illustration is found in the discovery that by the use of sulphur mixed with india-rubber, the rubber could be vulcanized and that without this agent the rubber could not be vulcanized. The combination of the two produced a result or article entirely different from that before in use.

"In this and numerous like instances, the parts cooperate in

(*Turn to Page* 91)

Hiring Salesmen

By R. F. Huntley*
Cowles Chemical Co.

LET me assure you at the start, because it will probably be obvious later, that I am not posing as an expert in the field of selecting, training and compensating salesmen. The bulk of my experience in this work has been with my present association, so I propose to tell you what we do and have been doing the past 10 or more years and the results that have been obtained. This is not to imply that you should do likewise, nor is it to indicate that we have found the Aladdin's Lamp that is the key to success. Our experience has definitely indicated that interviewing and selecting potential salesmen is the most important step in building a strong sales organization. When you are successful in selecting good men in the first place, your training problem is greatly simplified. When you have good men properly trained, you have a sales force that produces, which in turn simplifies your compensation plan. It is perhaps a whimsical trick of fate, that with all the intangibles associated with selling, few, if any other occupations offer such a direct relationship between results produced and income received.

Your credit manager, for example, is a necessary and important man in your business, but what possible basis can you use for a close estimate of the value of his services? The value of a man who sells by his own efforts $15,000 or $25,000 worth of your products in a given period can be appraised within reasonable limits by simple mathematics. Please note that I said —"by his own efforts." The problem becomes more complex when dealers or jobbers are involved and when heavy advertising or other sales promotion plans are part of the overall sales program. We are very happy to pay good money to the salesmen in our organization who make money for us. Our problem, and I assume that it is also yours, is to find such men in the first place, next to train them so that they produce in the shortest period of time and to compensate them in a fair and equitable manner that will provide a work incentive. The compensation plan that we use is seemingly fair and just to the man and to the company, as I will explain later.

The selection of salesmen in our organization can be conveniently divided into two parts — first, finding the candidates for the position and second, interviewing them and selecting those whom we think will be successful in our specialized type of work. We do not follow any specific pattern in our search for candidates — we use trade journal advertisements, local newspaper want ads, employment agencies, as well as recommendations from our customers and our own sales and office force. We have even been successful, in a few cases, in hiring relatives! We have not found that any one method of finding salesmen or potential salesmen is better than any other method.

When local and national economic and other conditions permit, we naturally like to have a large field from which we can select the one man for the particular territory to be covered. Generally speaking, we interview anywhere from 10 to 20 candidates in the selection of one. As you all know, there was a period a few years ago when it was very difficult to find a satisfactory applicant for a sales position, but within the past year we have noted an easing of this condition and according to the economic experts, we will have a much wider field to select from in the years ahead.

You must know what you are looking for, before you can find it and you must know the type of man you want before you can recognize him. It is most costly and wasteful to hire 10 mediocre or poor men in order to find one good one. It may cost as much as $10,000 to hire, train and keep an unqualified man in the field for a year. We try to know beforehand, from study, the type of man we want. We have him well classified. This helps us to recognize him when we find him.

Now let's consider the interview itself — our preliminary interview is mainly for the purpose of weeding out from the 10 or 20 applicants that we hope to have available, the two or three that show the most promise. Some 15 years or so ago we adopted a patterned interview through consultation with Dr. Jay L. Otis, director of the

*Before 27th annual meeting Assn., American Soap & Glycerine Producers, Inc., New York, Jan. 27, 1954.

research and service center of Western Reserve University in Cleveland. We have continued to consult with Dr. Otis over the years and our sales managers recently took a week's training course under him for the purpose of improving our interviewing technique.

In this rough interviewing or initial screening, our interviewers use what may be termed the listening technique. We ask the candidate to tell us first about his family from the time he was 10 or 12 years old up to the present time, then about his educational background and finally his past work experiences. We explain to the candidate that this type of interview is to save his time as well as ours and encourage him to talk freely about himself. I might add that this technique is very difficult for some of our sales managers, who have been very successful salesmen in the past and who are inclined to monopolize and dominate the conversation. Even so, it is estimated that we have changed our interviewer's listening time from 40% to about 85%. If, from this preliminary interview the candidate looks as though he had possibilities, we ask him to fill out an application form.

Frequently the application form itself is used for the preliminary screening of the candidates. This occurs when the form is presented prior to the preliminary interview which may be when an applicant writes to us seeking a sales position, or when we arrange in advance to interview a number of candidates from a want ad or through an employment agency.

I would be surprised if our application form differs materially from those used by other organizations. The application supplies us with important data on the candidate and the facts which he indicates are checked carefully, whenever and wherever possible, to make sure that they are facts. We regularly use an outside agency to help verify some of the facts and to obtain further information of a credit nature. Let me emphasize that our interviewers, even in the preliminary screening,

"Know what you are looking for (in a salesman) in the first place, develop the means for selecting good men and you are well on your way to building a strong sales force," author says.

attempt to obtain the intangible factors about the candidate. Often these are more important than the tangible factors which are contained on the application form and which can be checked by subsequent investigation.

Our next step in the selection of sales personnel is to give the applicant a series of tests which give us information on his personality, occupational interest and mental ability. Our tests and the scoring of them are custom built for our particular selling problem. This is based on a study of our sales organization by Dr. Otis the results of which have been reported in the *Journal of Applied Psychology*. We have used these tests for the past 15 years or so but have brought them up to date from time to time as additional factors are available. Our personality tests tend to tell us how the candidates compare in dominance, sociability, emotional stability and self confidence to all salesmen as a group and to the general population. The occupational interest likewise tends to tell us that the candidate is really interested in selling and if he has a general interest pattern which is typical of successful salesmen. The mental ability test is not necessarily based on the actual, factual education which the man has received, as some of the candidates with a year or two of high school actually show up with higher mental ability test scores than some college graduates. It does tell us whether the candidate is intelligent enough to handle the job.

The tests are graded or scored by our consultant and he in turn reports the results to us, along with the study of the application form, as favorable, questionable, or unsatisfactory. I might add that the results of these three tests are very helpful from what might be termed a negative viewpoint. By this I mean that they help us weed out the undesirable, and tell us when not to hire. We do not hire if the results are termed unsatisfactory by our consultant.

The fact that a candidate completes these tests with a favorable score does not necessarily mean, however, that he will be a successful salesman. The personality test is reliable only in telling us that the man is lacking in dominance, self confidence and emotional stability. The occupational interest test does a good job in determining whether the man is basically interested in selling, and this, according to our sales consultant is an important factor.

We now have completed the preliminary interview, we have verified the facts contained in the application form, and have received the test score from our consultant. Assuming that these are all favorable the next step is the very important follow-up interview in which we attempt to obtain more fully an insight into the intangible factors that make up the candidate.

Much has and probably will continue to be written, on what makes a good salesman tick. Some say that it is enthusiasm, others will hold out for a thorough knowledge of the product sold and the buyer's problem and still others contend that the ability to adjust personality to that of the buyer is the key to success. These are but a few of the intangible factors that must be considered. A pleasing personality,

while undoubtedly a helpful asset, has in our opinion been greatly overplayed in importance in the past. I am referring particularly to the old-fashioned idea that good salesmen are born and not made. It is surprising how many sales managers still hire a salesman because of his sociability — they hire the man because they imagine that he would be a pleasant person to work with in the field.

Here are some of the factors that we try to appraise in the interview. How about general maturity — is the candidate a good solid substantial citizen? Is he motivated —what makes him tick? Is he after money — is he a good commission man? Some men are afraid to work on a commission basis, because they do not have enough confidence in themselves to feel that they can make a living in this particular type of competitive selling. Capacity for work — does our candidate have good work habits? We generally find that a man who has started to work from the time that he was 12 or 14 years old, delivering newspapers or working in a store and during vacations will have established good work habits. There are other factors that you pick up as you go along with the interview, the man's temperament — his ability to get along with people, his skill in his work or profession, his social relationships — was he a leader in school? All these and many others of a similar vein are explored in the second interview.

We do not attempt to investigate a man's home life in too great detail, except as related to those factors which might affect his work. If we learn that he is bogged down with heavy indebtedness or with marital problems which would cause worry, then obviously we do not consider him a likely candidate for a commission type of selling job.

The so-called probing type of interview is frequently employed in the second meeting with our candidate. We think it particularly effective in determining something about the work habits of the man. Here are some examples — we ask the man his conception of the sales job for which he is being considered and his reply may well indicate that he is in the habit of selling through favors, and not through the quality of the product or the service that he is able to render through proper usage in the plant. We ask him how he gets started in the morning and surprisingly enough, we have applicants who tell us that they phone their smaller accounts around breakfast time and further probing brings out the fact that breakfast is generally consumed around 9:00 or 9:30 in the morning. We do not consider this a good work habit. We ask him to reconstruct a day in the past and from that gain an insight into his selling methods. To determine the indication of cooperation with sales promotion and advertising departments, we frequently ask the man what he thinks is the function of these departments. In an attempt to learn whether the candidate is the sort who has his own habits of selling and refuses to adopt ours, we often ask him if he likes to use a sales kit or what he thinks of visual sales aids. You who interview prospective salesmen would be surprised at some of the answers you get to questions of this general sort. You'll find it a most helpful tool in sizing up the type of man whom you are considering for a sales position.

When possible we like to have one man conduct the interview and another present to listen in and observe the candidates reactions. Not having the responsibility of conducting the interview the second man will frequently observe characteristics and traits that may escape the questioner. From the interplay between the two the observer can picture the way in which the candidate will handle himself under actual selling conditions in the field.

I do not know what it has cost each of you individually to attend this meeting, but if you will follow this final bit of advice on interviewing salesmen, you will save enough in 1954 to cover your expenses here. After you have satisfied yourself from the test and preliminary interview, the application form and the final interview, that the candidate is the man you want, hold off on actually hiring him until you have personally contacted his last employer. There are only two ways in which this can be carried out — actually see and talk to the man or call him by long distance phone, even if you are in New York City and he is located in San Francisco. Any kind of a letter is practically useless in obtaining this all important bit of information. A former employer or sales manager will talk off the record if you properly state your problem to him. I cannot emphasize too strongly this final step in the selection of good salesmen.

Now that the man is in our employ, how about training him? This varies with the different departments of our company, with the amount of experience the man has had in the past in our particular type of business and with the number of salesmen who are hired at one time. One of our departments, for example, usually employs from five to eight salesmen at a time and puts them through a regular three-weeks training class. Each man then spends one or two weeks in the field with one of our experienced men then is left on his own for two or three weeks in his own territory, following which the sales manager or assistant manager works with him in the field for approximately one week. In other departments, the training period will last from one to two weeks in the classroom, then a month or so on his own in the territory and then back to the classroom for a 2 or 3 day follow-up course. Until the salesman has been with us for 2 or 3 years, at least, either our department manager or one of his assistants will work with him three or four times in an average year, approximately one week each time.

Besides the usual sales promotion material, technical bulletins and written data from the office, we

(*Turn to Page* 91)

Germicidal Soaps...

Newest Aid to Sanitation in Food Handling Industry

By Ferdinand A. Korff*

Director, Bureau of Food Control
Baltimore City Health Department

THE subject of chemicals in food has been discussed extensively by law makers, regulatory officials and the medical profession. These discussions were begun after the sulfanilamide and Ginger Jake incidents of several years ago and have been continued because of the discoveries by food research chemists and the attempts by food processors to improve the keeping quality, nutritive value and sense appeal of their particular product.

Kaplan[1] has reviewed the use of chemicals in food by listing these improvers as being incorporated as preservatives, mold inhibitors, anti-sprouting agents, fumigants, germicides, maturation agents, anti-oxidants, emulsifiers and stabilizers, shortening extenders, humectants, anti-staling agents, artificial flavors, flavor enhancers, tenderizers, artificial colors, firming agents, plasticizers, ion exchange and ion sequestering agents, vitamin and mineral enrichment chemicals, leavening agents, bleaching agents, acidifying ingredients, neutralizers, industrial enzymes, films and waxing compounds, artificial sweeteners, plastic wrappers and treated papers, fungicidal wrappers, lubricants, antifoaming agents and baking pan glazes. This formidable list is only a partial compilation. Many additional chemicals are used in food plants, each may inadvertantly become incorporated with ingredients used in the fabrication of the final product.

The concern of the regulatory official and medical profession about chemicals in food, it can be assured, is that of preventing injury to the consumer. The addition of impure chemicals, the use of potentially hazardous and untested chemicals, the inadvertant addition of excessive amounts by untrained operators, or the deliberate incorporating for fraudulent purposes give the regulatory official the most concern. This plus the fact that of the more than 700 chemical compounds added to our daily food, only slightly more than 400 are definitely known to be safe, gives the regulatory official more concern. Many of these 400 or more chemicals are safe on sporadic ingestion, but continued use over a period of time may cause injury.

Chemical sanitizers when used in the food industry add to the list of chemicals that may inadvertantly find their way into food. These chemicals are valuable adjuncts in maintaining sanitary plant operation, but the freeing of food plants of undesirable substances may require over 60 preventive procedures, many of which may have to be subdivided into separate operations. Of these 60 preventive procedures only a few depend solely on the use of chemicals as the preventive. The control of insects, rodents and microorganisms, the principal reason for maintaining cleanliness in the food plant, requires considerable hard work. The use of chemicals can make the cleaning process less laborious. These adjuncts can become powerful weapons in the hands of trained and informed personnel in the battle against insects, rodents and the microorganisms.

Cleaning personnel in the plant and the regulatory official have a mutual interest. Both fight insects, rodents and microorganisms hoping that the sanitarian will be victorious. But unless a sanitizer is employed with extreme care in guarding against its getting into food, the regulatory official frowns on its use. Fortunately, so far, sani-

*Paper presented before 40th annual meeting, C.S.M.A., Washington, D. C., Dec. 7, 1953.

tizing chemicals are usually objectionable to the taste and frequently are tinted and made odorous. It is urged, nevertheless, that admonitions be given that these chemicals be kept away from and out of food.

Sanitizing chemicals may be divided into two groups. Group one consists of those intended for use on inanimate objects such as ceramics, metal, wood, glass and plastics. Sanitizers in this group are most frequently scrutinized by regulatory officials. The second group of sanitizers are those that are to be used by the individual worker in direct contact with his skin. Regulatory officials encourage greater use of skin sanitizers because it is recognized that handwashing is essential in food preparation.

In a tabulation of illnesses attributed to food[2], a list of over forty causes is given. Of these, three are reported as the most frequent cause of food poisoning or sickness caused by food, namely, *staphylococci, salmonellae* and bacillary dysenteries. These three types of illnesses are caused primarily by the infection being transmitted from the hands, mostly the fingers, to food. *Salmonella* and bacillary dysenteries originate in the human intestinal tract and the former in the intestinal tract of fowl. *Staphylococci* originate in open cuts, unhealed burns, the corners of the eyes, nose and mouth and in pimples, boils and similar skin infections.

By breaking the chain of infection from these origins to the food, the incidents of illnesses caused by these organisms can be minimized. The washing of hands after leaving the toilet and before handling or touching food or food equipment has been urged for many years with some measure of success. But there is still a great deal to be accomplished in this field of public health. Food handlers and food service personnel have been instructed, urged, pleaded with and begged to carry out this basic and fundamental health procedure. The adjunct chemical advocated has always been soap. Only recently have more effective germicidal hand soaps become available for use in the food industry. The work of Seastone and Erickson(3) and others concerning the incorporation of bis (2-hydroxy - 3,5,6 - trichlorophenyl) methane or hexachlorophene known as "G-11,"* has revived some hope that more effective results may be obtained in urging handwashing even in the privacy of the wash room.

Other very similar chemicals such as "Actamer"* or bithionol (2,2′ thiobis 4,6 dichlorophenol,) seem to be effective also in depositing a thin film of the germicide on the hands after washing with liquid soaps containing these chemicals. The possibility that these residual chemicals remaining on the hands after the use of these liquid soaps diminishes infection after minor cuts and abrasions occur encourages its use.

Liquid soaps and emollients have been used by surgeons, physicians and technicians for many years, and have been accepted for use by practically every hospital. There is no reason why these soaps should not be used in food departments of institutions and in every food plant and food establishment.

Public health officials have learned from years of experience the need for a continuous health information program using every means available to inform citizens of a community how they can "do their part in the prevention of disease." This leaf from the book of experience of the health official could very well be used as a guide to an industry which is manufacturing and offering a product, the sale of which can advance the objectives of the health official. Both the manufacturer of sanitizing chemicals and the health official are trying to control sickness caused by insects, rodents and microorganisms. To be effective both of the two groups must concertedly inform the individual food plant owner, manager, operator and employee in the same language, in the same manner, in a positive manner, the advantages of using the adjunct chemical and the disadvantages of misuse. This means that representatives of jobbers and distributors must be instructed and made well informed of the composition of the product, what it does, how it must be used, its frailties and its good points. This instruction must not be entrusted solely to the advertizing agency. It must be given by direct contact from the manufacturer to the salesman of the jobber or distributor. The latter also must consult with his local health department so that the health official can be informed of the product. This procedure is carried out by manufacturers of the newer drugs and antibiotics, and merits serious consideration by sanitary chemicals makers.

The two groups of sanitizing chemicals mentioned are valuable assets to the food industry in its serious attempts to market a pure food. Both of the groups have a specific function, one to clean inanimate objects; the other to aid the employee to keep his natural infections from getting into the food. Precautions have to be taken with both groups. These chemicals can only be valuable, however, insofar as the food plant employee and food service personnel are informed how they should be used.

It is urged and recommended, that

1. Training programs be established by the manufacturers or trade organizations to which they belong, whereby distributors, jobbers and representatives of allied companies be given full information concerning the merits, use, weaknesses and value of sanitizing chemicals.
2. The health official should be informed of such new chemicals before or at least at the same time of the beginning

(*Turn to Page* 91)

*Registered trade mark of Sindar Corp., New York.

*Registered trade name Monsanto Chemical , Co., St. Louis.

Soap in the Home Clothes

By Florence Ehrenkranz, Velma Williams Hyatt,

MANY variables determine how clean fabrics that are soiled will look after they are laundered in home washers. These include amount and kind of original soil on the fabrics, the washer, pounds of fabric per gallon of water, soap or detergent concentration, chemical composition of the soap or detergent, temperature of wash water, hardness of wash water, hardness of rinse water, and others.

The present investigation was planned with a view to possible simplification of future testing. If, for example, one rinse and two rinses produced the same cleaning results, future test work could use one rinse only. The investigation also was planned to supply background information for answering questions asked by homemakers. Finally, data were to be obtained for washing procedures not commonly used in the home that might improve washing results; thus 140°F., as well as the conventional 100°F., rinse water temperature was tried. With these objectives, the variables finally chosen for this investigation were: soft (0-1 grain) and hard (26-29 grain), 140°F. wash water; soft and hard 100°F. and 140°F. rinse water; one and two rinses; different concentrations of an all-purpose soap. Three washers were used: the American Home Laundry Manufacturers' Association "Comparator" (a non-automatic agitator type washer), a household agitator type automatic and a household pulsator type automatic. (The washing action of the third machine is characterized by an up and down movement of a flexible washing fin.) The water capacities of the "Comparator," agitator automatic and pulsator automatic were 16, 13.4 and 10 gallons, respectively.

Experimental Procedure

TWO series of measurements were carried out. In both series, "wash" loads of "Indian Head" fabric and swatches of "Testfabrics" number 26 cotton soiled cloth were used. Different fabric loads were used for soft and hard water wash-rinse conditions. The fabric loads consisted of rectangular pieces 22 inches by 34 inches after hemming. A six-pound load was used in the automatic washers and a three-pound load in the "Comparator" washer. Ten soiled swatches were used per wash load. One end of the soiled cloth swatch (three by four inches in the first series of measurements and four by four and one-half inches in the second series) was sewed to the center of a 22 by 34 inch rectangular load piece of "Indian Head" fabric. After they had been washed and rinsed the standard soiled swatches were removed from the load pieces and air-dried. Load pieces were dryer-dried. Light reflectances of the soiled swatches were measured with a Hunter reflectometer before the swatches were washed and again after they had been washed and air-dried. Reflectances were measured on the soiled side of the swatches in the first series of measurements and on the unsoiled side in the second series. Check measurements were made to confirm that conclusions on cleaning results were independent of which side was used for reflectance measurements, provided the same side was used for initial and final reflectances. Initial reflectances of swatches were 125 to 158 Hunter units for the first series and 465 to 551 for the second series.*

The wash-rinse procedure consisted of a 10-minute wash followed by one or two five-minute rinses. After each wash and rinse, the loads were extracted in the automatic washer being used or for loads washed in the Comparator in a different machine. Loads were removed from the washers between wash and rinse operations to permit flushing the washer. Each test was replicated five times.

The soap concentrations were: 3g/gal of water or .08 percent, 8g/gal or .21 percent, 13g/gal or .34 percent for the soft water washes, and 17.5g/gal or .46 percent, 22.5g/gal or .60 percent and 27.5g/gal or .73 percent for the hard water washes. The all-purpose soap used weighed 82.2g per standard measuring cup (average of five weighings). Thus for the 16-gallon "Comparator" washer, the concentrations just listed corresponded approximately to the following amounts in standard measuring cups: 0.6 cups, 1.6 cups, 2.5 cups for the soft water washes and 3.4 cups, 4.4 cups, 5.4 cups for the hard water washes. The largest amount of soap used with hard water, 5.4 cups in the "Comparator," gave a lasting suds of 2½ to 3 inches, approximately.

Results

TABLE 1 gives average reflectance differences (final minus initial reflectances) for the series of measurements in which soft water washes were followed by soft rinses and hard water washes by

*The scale on the reflectometer extends from .08 to 1.00. For simplicity, observed scale readings were multiplied by 1,000.

Washer

Margaret Beale*

hard rinses. Table 2 gives average reflectance differences for the series in which soft water washes were followed by soft or hard rinses and hard water washes by soft or hard rinses. The separate analyses of variance carried out for the data summarized in Table 1 and 2 are shown in the theses of Velma Williams Hyatt(1) and Margaret Beale(2).

Optimum soap concentrations—When soft wash water was used, a soap concentration of .21 percent or .34 percent was appreciably better than a soap concentration of .08 percent (Table 1). Also, for the agitator-type automatic .21 percent was better than .34 percent; for the "Comparator," with its relatively high ratio of soap-water solution to weight of wash load, .21 percent and .34 percent gave the same cleaning. When hard washwater was used, .60 percent was better than .46 percent for the agitator and pulsator automatic and .60 percent was better than .73 percent for the agitator; for the "Comparator," .46 percent, .60 percent and .73 percent soap concentrations gave the same cleaning.

Soft vs. hard wash water—Soft wash water with a soap concentration of .21 percent gave better cleaning results than hard wash water with a soap concentration of .46 percent, .60 percent or .73 percent (Table 1). However, too small a concentration of soap can be used even in soft water washes. For example, a soap concentration of .08 percent in soft wash water with one or two soft rinses in general was inferior to a concentration of .46 percent, .60 percent or .73 percent in hard wash water with two hard rinses.

Soft vs. hard rinse water—Soft water rinses gave better cleaning than hard water rinses when hard wash water with a .46 percent soap concentration was used and when soft wash water with .08 soap concentration was used (Table 2).

Two rinses vs. one rinse—The data indicate the relative effectivenesses of two rinses versus one rinse depend on the washer, soap concentration, initial soil, and whether soft or hard rinse water is used. For example, for the data on soft water washes summarized in the top half of Table 2, the difference between one and two rinses is not statistically significant at the five percent level; that is, there is about one chance in 20 that there is a real difference between one and two rinses. On the other

(*Turn to Page 97*)

Table 1

Three Wash-rinses Combinations at Three Soap Concentrations for Soiled Swatches with Initial Values of 465 to 553 Hunter Reflectometer Units. (Each entry is the average difference in Hunter units for washed vs. soiled swatches based on 50 values—5 washes with 10 swatches per wash.)

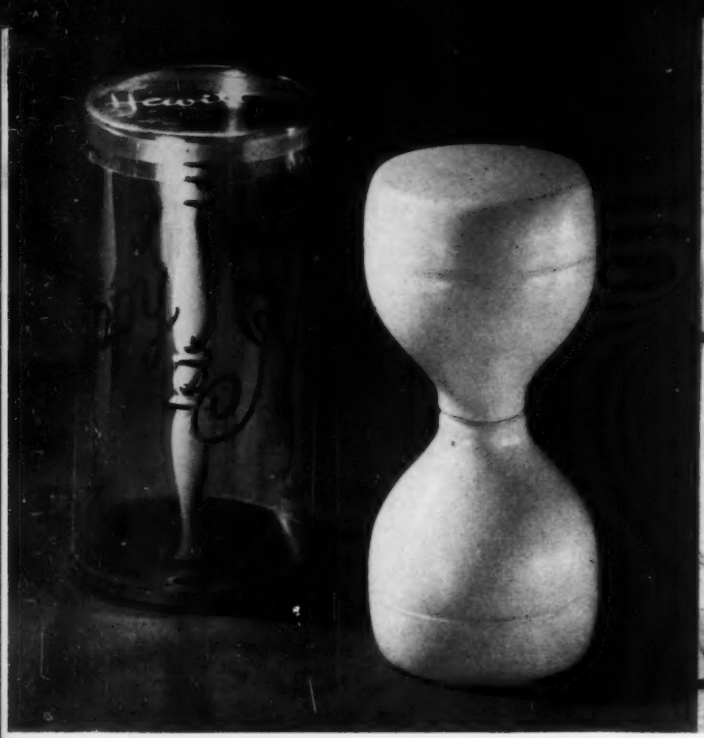
	Comparator	Agitator-type automatic	Pulsator-type automatic
140 F soft wash water, with one 100 F soft rinse			
.08% soap concentration	77.6	51.4	62.0
.21% soap concentration	89.7	87.7	85.3
.34% soap concentration	89.1	80.2	——
140 F soft wash water, with two 100 F soft rinses			
.08% soap concentration	81.8	71.8	68.7
.21% soap concentration	93.4	85.4	83.4
.34% soap concentration	93.3	80.6	——
140 F hard wash water, with two 100 F hard rinses			
.46% soap concentration	85.6	76.2	67.3
.60% soap concentration	84.6	80.6	76.0
.73% soap concentration	85.9	77.9	——

Table 2

Thirty Two Wash-rinse Combinations for Soiled Swatches with initial Values of 125 to 158 Reflectometer Units. (Each entry is the average difference in Hunter units for washed vs. soiled swatches based on 50 values—5 washes with 10 swatches per wash.)

	Comparator		Agitator-type automatic	
Number and temp. of rinses	Soft rinse or rinses	Hard rinse or rinses	Soft rinse or rinses	Hard rinse or rinses
140 F soft wash water with .08% soap concentration				
one 100 F	213.7	178.8	187.9	129.0
one 140 F	217.2	165.0	185.6	133.4
two 100 F	215.0	168.5	191.0	131.3
two 140 F	215.2	168.0	202.7	133.9
140 F hard wash water with .46% soap concentration				
one 100 F	222.0	209.2	188.6	156.5
one 140 F	215.1	203.6	187.9	163.8
two 100 F	235.6	209.3	196.9	177.4
two 140 F	232.1	209.6	206.2	168.0

*Florence Ehrenkranz, Professor, Iowa State College. Velma Williams Hyatt and Margaret Beale carried out the experimental work as part of the M. S. requirements in Household Equipment under the direction of the senior author. Journal paper No. J-2386 of the Iowa Agricultural Experiment Station, Ames, Project No. 1157.



First novelty soap of the new year was issued recently by Hewitt Soap Co., Dayton. In the shape of an hour glass, soap at right, fits into transparent plastic container at left, which bears the words "Happy New Year."

Newst addition to the Yardley of New York line are "Red Roses" and "Crushed Carnation" soaps, top and bottom, respectively, in photo above. "Red Roses" comes in pink, and "Crushed Carnation ivory. They retail for $1.50 a box.

WHAT'S NEW?

New "Antrol African Violet" aerosol insecticide of Boyle-Midway, Inc., New York, was announced recently. Packed in a six ounce can, it contains pyrethrins, rotenone and piperonyl butoxide. It is designed for use on household plants.

A newly designed five-gallon container of Inland Steel Container Co., Chicago, is being used by Betco Corp., Toledo, for its concentrated cleaner. Container is regular five gallon open head type unit with pour spout and lithoed in two colors

Entire back panels of packages of "Instant Fels Naptha" soap and "Felso" detergent of Fels & Co., Philadelphia, are being used to promote "Free Gifts for Fels Coupons," latest premium offer of Fels. More than 450 items are available to consumers.

"Aluminum-Bright," a new liquid cleaner for removing stains from aluminum utensils was announced recently by Shine-Off Co., New York. Stains and spots are removed by boiling the liquid in utensils to be cleaned. Bottle contains 16 fluid ounces of reusable cleaner.

A new shampoo product, "Johnson's Baby Shampoo," that is claimed will not burn or irritate the eyes, was introduced last month by Johnson & Johnson, New Brunswick, N. J., to retail for 59 cents in 4 oz. stipple-finish glass bottles. Product is introduced nationally this month.

Arvey Corp., Chicago, is supplying the distinctive wrap for "Creamade" soap of Wilson & Co., Chicago. Cerise and black are printed by Arvey's multi-color process on paper-backed gold foil to package Wilson's new deodorant cold cream soap.

"Professor Foster's Discovery," a new liquid detergent made by the chemical division of John Sexton and Co., Chicago, comes packaged in 16 ounce glass bottles with applied color label. The all-purpose detergent bears the Good Housekeeping Seal of Approval. Bottles and labels by Brockway Glass Co.

New liquid waterless hand cleaner dispenser (top, right) made by Hammons Products, Inc., Fort Wayne, Inc., features pliable rubber nozzle, which when squeezed dispenses cleaner in predetermined quantity. Container is polyethylene in quart or gallon sizes, mounted on rustproof wall bracket with swivel mechanism for easy refilling.

F. E. I. Corp., New York, recently introduced "Dr. Ellis Wave Set" formula in eight ounce glass bottles supplied by Brockway Glass Co. Caps are by West Penn Mfg. Co., and labels by Fuller Box and Label Company.

IMPULSE APPEAL

Vibrant color . . . the sensory appeal of warm lightness . . . the promise of convenience . . . *THAT'S THE PLAXPAK® BOTTLE.*

PLAX

USE APPEAL

The infinite ease of a one-hand squeeze . . . the perfect safety of unbreakability . . . *THAT'S THE PLAXPAK BOTTLE.*

PLAX

PLAXPAK BOTTLES • PLAXPAK BOTTLES • PLAXPAK BOTTLES • PLAXPAK BOTTLES

REPEAT APPEAL

A magnet at the point-of-purchase . . . an aid to your product at the point-of-use . . . it sells, then resells . . . *THAT'S THE PLAXPAK BOTTLE.*

PLAX

PLAXPAK BOTTLES • PLAXPAK BOTTLES • PLAXPAK BOTTLES • PLAXPAK BOTTLES • PLAXPAK BOTTLES • PLAXPAK BOTTLES

The Plaxpak polyethylene bottle is packed with merchandising magic. And Plax alone has the experience to exploit this magic to its fullest in behalf of your product. Our packaging staff is at your service — For packaging that sells at the point-of-sale and resells at the point-of-use.

PLAX CORPORATION

PLAX

WEST HARTFORD, CONNECTICUT

IN CANADA: Plax Canada, Ltd., Toronto

PRODUCTION PROBLEMS INVOLVE PHOSPHATES?

. . . Wash 'Em Right Out of Your Hair with GENERAL CHEMICAL PHOSPHATES!

If your production problems involve phosphates, you can rely upon General Chemical Phosphates to help you do the job . . . and do it *right!* That's because "G.C." Phosphates are always uniform. Each is made to meet the same strict specifications, shipment after shipment . . . giving you a process material that can be depended upon for consistent quality and purity.

And wherever you may use phosphates—in making soaps and detergents, in textile finishing, in metal or industrial cleaning, or even in boiler water treatment—you will find there's a General Chemical Phosphate in a grade especially suited to your purposes.

Stocks are maintained at all of General's distributing stations from coast to coast. There is one located nearby ready to supply your needs promptly and regularly. Why not arrange to schedule your first shipment from it today?

Product	*Grade*
SODIUM TRIPOLYPHOSPHATE, Anhydrous $Na_5P_3O_{10}$ (Tripoly)	Powdered Granular
TETRASODIUM PYROPHOSPHATE, Anhydrous $Na_4P_2O_7$ (TSPP) (Pyro)	Powdered Granular Diamond
DISODIUM PHOSPHATE, Anhydrous Na_2HPO_4	Powder Flake
TRISODIUM PHOSPHATE, $Na_3PO_4 \cdot 12\ H_2O$ (TSP)	Flake Coarse Medium Standard Fines

GENERAL CHEMICAL DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.

Offices: Albany • Atlanta • Baltimore • Birmingham • Boston • Bridgeport • Buffalo Charlotte • Chicago • Cleveland • Denver • Detroit • Greenville (Miss.) • Houston Jacksonville • Kalamazoo • Los Angeles • Minneapolis • New York • Philadelphia Pittsburgh • Providence • San Francisco • Seattle • St. Louis • Yakima (Wash.)
In Wisconsin: General Chemical Company, Inc., Milwaukee
In Canada: The Nichols Chemical Company, Limited • Montreal • Toronto • Vancouver

Allied Chemical

Basic Chemicals for American Industry

Not one . . . . . .

or two . . . . . .

but THREE

A Continental aerosol can is tailor-made for you!

If yours is a sprayable product in the non-food field, you'll find that one of these *three styles of aerosol cans* could have been designed especially for you. As part of Continental's Tailor-Made Package Service, we'll deliver all of these cans you can use, any time you want them. Individualized engineering and fine lithography are available, and — if you wish — contacts with valve suppliers and commercial fillers. Why not give us a chance to work with you — not just as suppliers, but as interested counselors and friends.

DOME TOP — Domes attached and equipped with standard 1" curled opening for all popular valves. Regular (12 oz.) or Midget (6 oz.).

CONCAVE TOP — Tops furnished loose and perforated with hole-punch for specified aerosol valves. Regular (12 oz.) or Midget (6 oz.).

DOME TOP—Domes furnished loose and perforated with hole-punch for specified aerosol valves. Regular (12 oz.) or Midget (6 oz.).

CONTINENTAL © CAN COMPANY

Continental Can Building • 100 East 42nd Street, New York 17, N.Y.

EASTERN DIV.: 100 E. 42nd ST., NEW YORK 17 • CENTRAL DIV.: 135 SO. LA SALLE ST., CHICAGO 3 • PACIFIC DIV.: RUSS BUILDING, SAN FRANCISCO 4

Phantolid®*

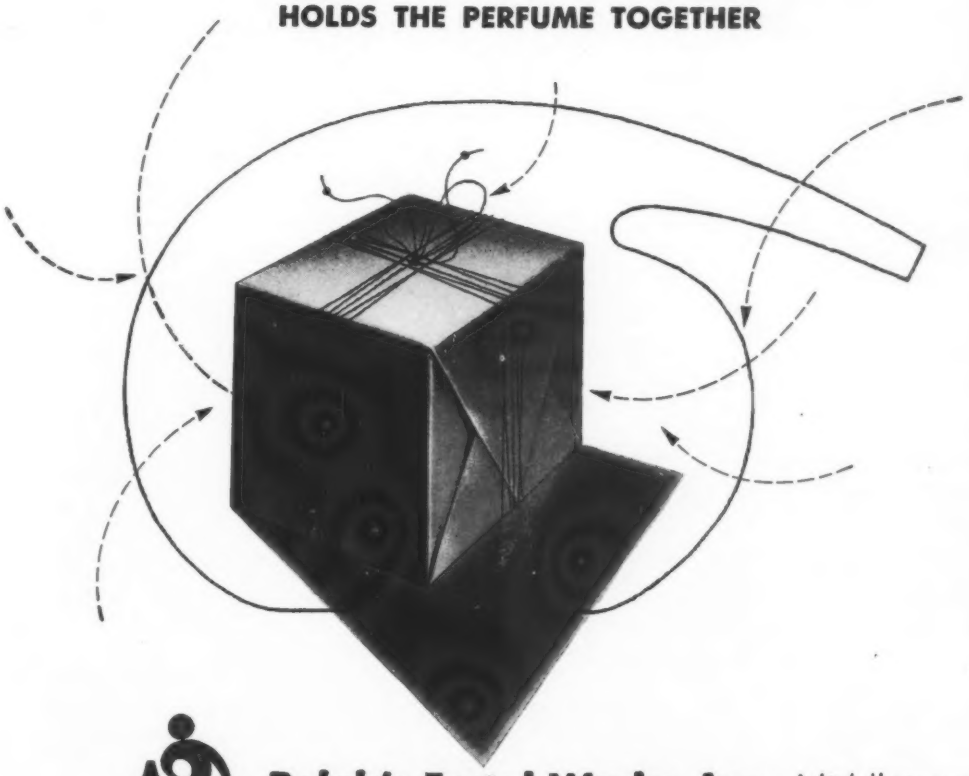
THE
new
aromatic chemical
musk-tonkin type
lasting, economical

Useful addition to present standard fixatives

Does not discolor perfumes, creams, soaps, and other cosmetic preparations

Like a string around a package, it...

HOLDS THE PERFUME TOGETHER



Polak's Frutal Works, Inc., Middletown, New York

*Domestic and Foreign Patents applied for.

News

Heads Armour Soap Div.

Paul F. Tevis, formerly executive vice-president, director and sales manager of College Inn Food

Paul F. Tevis

Products Co., Chicago, has been named to the newly created post of general sales manager of the soap division of Armour and Co., Chicago. He is directing the sales of the household soap department, which markets "Dial" soap, "Dial" shampoo, "Chiffon" soap flakes, and "Armour Suds." In addition, Mr. Tevis is directing sales of the industrial and contract soap departments and the glycerine department.

Mr. Tevis has had a long career in marketing and management in the food industry. He is a graduate of the executive program of the University of Chicago, where he also received a degree of M.B.A. in marketing.

—★—

F. H. Schultz Dies

Francis Henry Schultz, 60, manager of North Coast Chemical & Soap Co., Seattle, died of a heart attack Jan. 15. A chemical engineering graduate of the University of Oregon, he had been with the soap company for 25 years. A native of Missouri, Mr. Schultz moved to Oregon 35 years ago. He was a veteran of World War I, in which he served in the Army Medical Corps. He was a charter member of the White Center Post, Veterans of Foreign Wars, and was a member of the Eagles, Toastmasters' Club and the Quartermaster's Association.

Mr. Schultz is survived by his wife, Ruie; a son, Frank Schultz; his mother, Mrs. Molly Schultz of Vancouver, Wash.; two brothers, William and Harry Schultz, and two grandchildren.

—★—

New DuBois Product Name

DuBois Co., Cincinnati, recently announced that they were changing the trade name of their dairy plant cleaner from "Dart" to "Dair". The cleaner is specially compounded for use on dairy plant floors, walls, transport tanks, vats, lines and other similar surfaces, except high temperature equipment.

—★—

In C-P Soap Sales Post

Eugene E. Buckner has been named New York divisional manager of the soap sales department of Colgate-Palmolive Co., Jersey City, N. J., it was announced last month. Mr. Buckner, a native of Chicago, had been Los Angeles district manager. He joined Colgate in Chicago in 1939, and worked up to the position of district supervisor in the Chicago district before being appointed district manager in Pittsburgh.

Eugene E. Buckner

Wyandotte Names Shultz

The appointment of Herbert S. Shultz as industrial engineer at Wyandotte Chemicals Corp., Wyan-

Herbert S. Shultz

dotte, Mich., was announced recently. A veteran of 13 years with Wyandotte, Mr. Shultz has been a member of the technical service department of Michigan Alkali Division since 1948. In his new post Mr. Shultz is acting in the capacity of a technical service representative to Wyandotte's manufacturing division. His main responsibilities are the development of improved material handling procedures, the study of cost standards and making recommendations concerning packages and packaging operations.

—★—

Better Syndet Distribution

Four new terminals for distribution of synthetic detergent raw materials will be established by Continental Oil Co., Houston, Tex., it was announced this month by H. P. Solem, manager of petrochemical sales.

Construction of new terminal facilities at Louisville, Ky., and Lake Charles, La., is expected to get under way immediately, while a new leased terminal in Jersey City, N. J., is already in operation. Conoco also plans to expand its existing terminal facilities at its petrochemical plant in Baltimore, and has ar-

HERE'S ONE SURE WAY TO PERK UP SALES OF YOUR...

LAUNDRY SOAPS

WHETHER chips or flakes,
powders, beads or bars,
your laundry soaps can be made
intrinsically more attractive
by the judicious use
of a carefully selected fragrance.
None will deny—
much less the users of your product—
that there's a psychological prod,
when shopping for soaps,
to favor that brand
whose clean, gentle fragrance
lends a cheerier note
to the tedium of "wash day blues".
A sure way, then, to UP your sales
is to acquire a perfume
that will elevate your product
in the user's favor.
Given opportunity to do so,
we can helpfully assist you
in developing just such
a compelling and distinctive fragrance.

ALSO

PERFUME

SPECIALTIES

FOR:

AEROSOLS

CLEANING COMPOUNDS

DEODORANTS

DISINFECTANTS

FLOOR POLISHES

FORMALDEHYDE SPRAYS

HOUSEHOLD SPRAYS

INSECTICIDES

LIQUID SOAPS

PARA BLOCKS

SCOURING POWDERS

SHAMPOOS

TOILET SOAPS

ETC.

FRITZSCHE *Established* 1871 *Brothers, Inc.*

PORT AUTHORITY BUILDING, 76 NINTH AVENUE, NEW YORK 11, N. Y.

BRANCH OFFICES *and* *STOCKS: *Atlanta, Georgia, Boston, Massachusetts, *Chicago, Illinois, Cincinnati, Ohio, Cleveland, Ohio, *Los Angeles, California, Philadelphia, Pennsylvania, San Francisco, California, *St. Louis, Missouri, *Toronto, Canada and *Mexico, D. F. FACTORY: *Clifton, N. J.*

ranged for leasing of new terminal space in Chicago. With these new distributing facilities, the firm can ship raw materials for detergents from its Baltimore plant by tank ship, from Lake Charles by barge and tank car and from Jersey City, Louisville and Chicago by tank car or truck.

—★—

Woburn Appoints Gowdy

The appointment of T. F. Gowdy Co., New York, as its sales representative within the 50 mile radius of New York City, excluding Long Island, was announced recently by Woburn Chemical Corp., Harrison, N. J. The Gowdy company has exclusive representation of Woburn's fatty acids and dehydrated castor oil.

—★—

Colgate Advances Two

The advancement of Howard P. McClure to the position of general sales manager of the toilet article department of Colgate-Palmolive Co., Jersey City, N. J., and the naming of Robert G. Urban as merchandising manager of the same department was announced recently by R. E. Hilbrant, manager of the toilet article department.

Mr. McClure has been in charge of sales of the Kay Daumit division since 1946, when Colgate acquired the "Lustre-Creme Shampoo" brand through the purchase of Kay Daumit, Inc., Chicago. Mr. McClure joined Colgate as a salesman in Atlanta in 1925. He has served the toilet article department successively as Dallas district manager, western divisional manager in San Francisco, and central divisional manager in Chicago before being elevated to his position as sales manager of the Kay Daumit division.

Mr. Urban joined Colgate as a toilet article department salesman in Indianapolis in 1946. He since has served as Cincinnati district sales supervisor, Buffalo district sales manager and assistant merchandising manager in the Colgate home office in Jersey City, N. J. A native of Cincinnati, Mr. Urban is a graduate of Ohio Wesleyan University.

Process Chem. Names Two

Appointment of Oscar L. Scherr, formerly chief chemist of Ninol Laboratories, Inc., Chicago,

Oscar L. Scherr

as chief chemist, research division of Process Chemicals Co., Los Angeles, Calif., was announced recently. Mr. Scherr is currently working on the development of new surfactants by esterification reactions, by fatty alkanol amide condensations, and by alkyl aryl sulfonations.

At the same time R. Gerald Smernoff, previously junior chem-

R. G. Smernoff

ical engineer, General Petroleum Corp., Los Angeles, was named chief chemist, production and control division of Process Chemicals Co. Besides managing production, Mr. Smernoff is working on the development of chemical specialties.

Lumpkin Joins Girdler

W. Doss Lumpkin, formerly in charge of the field activities in fats and oils for Filtrol Corp., Los Angeles, recently was appointed to the sales staff of the Votator Division of Girdler Co., Louisville, Ky. He is associated with the division's fats and oils section, headed by Allen Bond. Mr. Lumpkin began his business career with Phillips Petroleum Co., Bartlesville, Okla., resigning in 1941 to join Filtrol Corp. He represented Filtrol in the United States and Canada.

—★—

Elmer F. Smith Dies

Elmer F. Smith of American Aniline Products, Inc., New York, died December 4 in Chicago. Mr. Smith was manager of the firm's Chicago office and a past president of the Chicago Drug and Chemical Association.

Howard P. McClure

Robert G. Urban

Today's packages have a double sales job to do: win impulse sales . . . make repeat sales. Duraglas salespackages are geared for this double duty.

POLISH UP your package to polish UP SALES!

SUCCESSFUL PACKAGES LIKE successful products know how to do a job *well*.

This Duraglas package is a fine salesman for your products. The grip features of the *bottle* make it easier to hold . . . more convenient to use; colorful *ACL label design* fused right onto the glass gives dramatic impact and display value at the point of sale.

Don't let your product suffer lack of sales success for want of an economical, efficient salespackage that knows exactly how to win impulse sales *and* repeat sales. Call our nearest branch office today for complete Duraglas salespackaging—containers, closures, label designs and cartons.

DURAGLAS CONTAINERS
AN (I) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Wyandotte Names Healy

The appointment of Lawrence J. Healy, Jr., as technical service representative of the Michi-

Lawrence J. Healy, Jr.

gan Alkali Division of Wyandotte Chemicals Corp., Wyandotte, Mich., was announced recently. Mr. Healy attended Cornell University and Wayne University, where he received a chemical engineering degree. Prior to his new appointment he was section head of the fine chemicals department in the pilot plant. He had joined Wyandotte's research department in 1948. Prior to joining Wyandotte, Mr. Healy served in the Air Material Command at the Power Plant Laboratory, Wright Field, Dayton, O.

—— ★ ——

Heads Detrex P.R.

The appointment of A. W. Stoddard as director of public relations and advertising of Detrex Corp., Detroit, was announced recently.

—— ★ ——

SAACI Installs Officers

Warren F. Schumacher, sales manager of the fine chemicals division of J. T. Baker Chemical Co., Phillipsburg, N. J., was installed as president of the Salesmen's Association of the American Chemical Industry, at the annual installation dinner, held at the Roosevelt Hotel, New York, Jan. 20.

Taking office with the new SAACI president were John F. Henry of Adams-Henry Chemical Co., New York, vice-president; E. L. Collins of Chilean Nitrate Sales Corp., New York, treasurer, and Vincent L. Rebak of Grace Chemical Co., New York, secretary.

Six new directors were elected to the board. They are: J. N. Conover of L. Sonneborn Sons, Inc., New York; N. H. Fyffe, Oldbury Electro-Chemical Co., New York; Clifford S. Heathcote, Monsanto Chemical Co., New York; F. H. Johnson, Barrett Division of Allied Chemical & Dye Corp., New York; Robert J. Roberts, Emery Industries, Inc., New York, and M. Testa, Jr., Shell Chemical Corp., New York.

Mr. Schumacher joined SAACI in 1946, became a director in 1950, was elected secretary in 1951, was named treasurer the following year, and in 1953 served as vice-president of the organization.

Robert J. Quinn, a past president of SAACI and formerly connected with Mathieson Chemical Corp., flew from Tucson, Ariz., where he makes his residence to attend the meeting. He presented retiring president Robert J. Milano of Millmaster Chemical Co., New York, with a gold watch. The following retiring directors were given engraved scrolls: W. Newell Wyatt, Theobald Industries, Inc., Kearny, N. J.; George Conboy, Merck & Co., Rahway, N. J.; James Spencer, Harshaw Chemical Co., New York, and Herman Schulman, Washine National Sands, Inc., Long Island City, N. Y.

Warren F. Schumacher

Mooney to Continental

The appointment of Richard S. Mooney as technical service representative for Continental Oil

Richard S. Mooney

Company's petrochemical department, with headquarters in New York, was announced recently by H. P. Solem, general manager of petrochemical sales. A graduate of Massachusetts Institute of Technology, he received his B.S. degree in chemical engineering in 1947. Since 1951 he has been district sales manager of Great Lakes Carbon Corp., Philadelphia, and previously was associated for four years with Scott Paper Co. in technical positions at Glens Falls, N. Y. and Chester, Pa. Continental operates petrochemical plants at Baltimore, Chicago, and Trainer, Pa., which produce raw materials for synthetic detergents, etc.

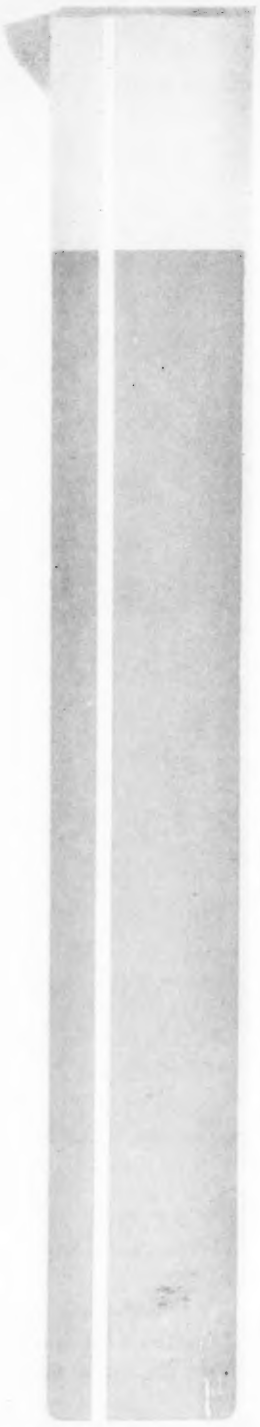
—— ★ ——

Am. Cyanamid Reorganizes

The appointment of Kenneth H. Klipstein as general manager of the newly created Research Division of American Cyanamid Co., New York, is one of a number of changes in managerial organization announced recently by K. C. Towe, president of the company. This new division is responsible for the operation of the Stamford research laboratories under the direction of Dr. J. T. Thurston, and supervises other research and development programs which are not the direct responsibility of operating divisions, and coordinates these programs

Nothing like it before!
new liquid
Nacconol® *SL*

for easier formulation and greater sales appeal in your new liquid detergents



This amazing new *clean looking, clean smelling* liquid form of Nacconol is the only product on the market combining all these sales making features:

Exceptionally light color.

No unpleasant characteristic odor.

Very low haze point. No precipitation at temperatures down to freezing.

Good money-value, no stabilizer needed.

Cuts production time, requires no dissolving, has low salt-content.

Yes, these are strong statements but they are simple facts that you can easily check.

SEND FOR YOUR SAMPLE *NOW!*

and test Nacconol SL yourself. Remember — for a better liquid detergent always start with a liquid base.

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2240

Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Providence 3, R.I., 15 Westminster St.	DExter 1-3008	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Philadelphia 6, Pa., 200-204 S. Front St.	LOmbard 3-6382	Greensboro, N.C., Jefferson Standard Bldg.	GReensboro 2-2518
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 6-6347
Portland 9, Ore., 730 West Burnside St.	Beacon 1853	Atlanta, Ga., 1216 Spring St., N. W.	Elgin 8368
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3387	New Orleans 12, La., Carondelet Building	Raymond 7228
Charlotte 1, N.C., 201-203 West First St.	CHarlotte 3-9221	Toronto 2, Canada, 137-143 Wellington St. W.	Empire 4-6495

*Reg. U.S. Pat. Off.

Allied Chemical

Without cost or obligation, send a Nacconal SL sample to:

NAME _____

TITLE _____

COMPANY _____

ADDRESS _____

_____

with related activities of the operating divisions.

L. C. Duncan has been named general manager and V. E. Atkins assistant general manager of the newly organized Organic Chemicals Division, which merges and consolidates the activities of the Petrochemicals Division with those of the Calco Chemical Division.

Another change has created the Fine Chemicals Division with A. B. Clow as general manager and A. R. Loosli as assistant general manager. This division will operate the Princeton, N.J., plant, recently purchased from Heyden Chemical Co., New York. In addition, it handles domestic sales of bulk antibiotics, bulk pharmaceuticals, including those heretofore produced and sold by Calco Chemical Division, and the animal feed products formerly handled by Lederle Laboratories Division.

Production and sale of titanium dioxide and other pigments, formerly the concern of Calco Chemical Division, are now the responsibility of the new Pigments Division with J. Allegaert as general manager and A. B. Hettrick as assistant general manager.

In making the announcement Mr. Towe said that these changes make it possible for vice presidents S. C. Moody and R. C. Swain to devote all their time to general staff matters and to assist in the determination of company policy.

The reorganization became effective January 1, 1954.

★

E. J. Brownell Dies

Edwin J. Brownell, 62, a soap maker of Los Angeles, died Dec. 12, at his home at 7426 Whitmore St. in South San Gabriel, a suburb of Los Angeles. He is survived by his widow, Dorothy.

★

Soaper Aids Sales Rally

William J. Tormey, White King Soap Co., Los Angeles, was one of a number of Southern California sales experts who served on the executive committee for the Los Angeles 1954 Sales Rally, held at the Shrine Auditorium, Jan. 29.

Westvaco Advances Two

Arthur F. Smith and Preston F. Tinsley have been appointed assistant managers of sales, West-

A. Smith

P. Tinsley

vaco Chemical Division, Food Machinery and Chemical Corp., New York, it was announced last month by Donald C. Oskin, manager of sales. Westvaco Chemical Division is sales agent for the recently formed FMC operation divisions: Westvaco Mineral Products Division and Westvaco Chlor-Alkali Division.

Mr. Smith joined Westvaco in 1941. After representing the company in the New England and Ohio territories, he successively became divisional sales manager of the barium chemicals division, solvents division and chlor-alkali division.

Mr. Tinsley has been with Westvaco since 1939. He was district sales manager in Charlotte, N. C., until late in 1941. From 1942 to 1946 he served in the armed forces and while in Europe attaining the rank of captain. From 1946 he has successively been district sales manager in Cincinnati and New York, prior to his appointment as director of district sales in 1952.

★

Oakite Names Two

Management of the general operation of the package division of Oakite Products, Inc., New York, has been placed in charge of Fred A. Aston, Jr., sales manager, it was announced recently by H. Liggett Gray, vice-president.

At the same time it was announced that Michael J. Cullinane has been made advertising manager, in charge of publicity and merchandising activities. Both men have been associated with Oakite for many years, and worked closely with the late Frank A. Conolly in the merchandising of "Oakite."

★

Nonionic Dye Assistants

Four nonionic dyeing auxiliaries were introduced recently by Dexter Chemical Corp., New York. The new products are polyoxyethylated fatty alcohols trade named "Telkanol O," "Dextrol Fast Salt M," "Rexan O," and "Telkanite M."

Five veteran employees of Givaudan-Delawanna, Inc., New York, who were presented with gold Swiss watches on the occasion of their 25th anniversary with the company are, l. to r.: W. D. Bickler, Dr. M. S. Carpenter, John Siemczyk, Hugo Soff and Peter Yansura. Ernest Durrer, president, in dark suit, fourth from left, is presenting the watches at the annual Christmas party held at Swiss Chalet, Rochelle Park, N. J. Just behind and to the left of Mr. Durrer is H. F. Duffy, treasurer of the company. Dr. Max Luthy, vice-president and factory manager, stands to the right of Mr. Durrer.
A sixth, 25 year veteran employee, John Takacs, died last August. His widow was presented with an engraved watch. Approximately 350 employees of the Givaudan organization attended the annual party.

LOWER PRICED

RIGIDLY MOUNTED

SEE THESE NEW MODELS IN OUR BOOTH No. 102 AT THE N.S.S.A. CONVENTION

DOUBLE CAPACITY CUTS MAINTENANCE COSTS

NO GLASS— ADDED SAFETY

Bobrick 25
For liquid

Bobrick 45
For lather

NOW, TWO *New* ALL METAL DISPENSERS

Check these sensational advanced features!

- √ Priced lower than any comparable all-metal soap dispenser on the market today.
- √ Concealed locking device accessible only by use of special key secures Dispenser to wall plate — prevents pilferage.
- √ Mounted rigidly with 3 or 4 screws or with adhesive.
- √ Large 18 fluid ounce capacity is almost double that of any comparable model — less frequent filling by Custodian.
- √ Inner container is transparent shatterproof Lustrex — not breakable glass.
- √ Sturdy tamper-proof lock top opens only with special key.
- √ Gleaming chrome-plated brass and stainless steel exterior has sparkling easy-to-clean finish.

It's easy to turn prospects into customers with the low operational and lower initial cost features of these high quality Dispensers. Returnable samples are available for testing and comparison by you and your prospects. Don't lose sales opportunities by not having these models on hand. Place your order for returnable samples or trial dozen-lot today.

Bobrick SOAP DISPENSERS

Since 1906

1214 Nostrand Ave., Brooklyn 25, New York • 1839 Blake Ave., Los Angeles 39, Calif.

Shipping stocks available at BROOKLYN, CHICAGO, ATLANTA, DALLAS *and* LOS ANGELES

Canadian Representatives: Wyant & Co., Ltd., MONTREAL, TORONTO, CALGARY, EDMONTON, VANCOUVER

EOA Elects Gampert

Higher prices for essential oils and aromatic chemicals in 1954 were forecast by Waldo F. Reiss, vice-president of Van Ameringen-Haebler, Inc., New York, and retiring president of the Essential Oil Association of the U. S. A. Mr. Reiss, speaking at the annual meeting of the association, Jan. 8, at the Savoy Plaza Hotel, New York, predicted that business activity during the coming year will be brisk.

Louis Gampert, vice-president of Felton Chemical Co., New York, was elected president of the Essential Oil Association for 1954. Pierre J. Coutin, vice-president of Roure DuPont, Inc., New York, was named vice-president and F. F. Dittrich, secretary of Ungerer & Co., New York, was chosen secretary treasurer.

New members elected to the executive committee are: R. A. Engel, vice-president of Trubek Laboratories, Inc., E. Rutherford, N. J.; George H. McGlynn, vice-president of Magnus, Mabee & Reynard, Inc., New York; Hans P. Weseman, vice-president of Fritzsche Brothers, Inc., New York; and Waldo Reis, vice-president of Van Ameringen-Haebler, Inc., New York. Ray C. Schlotterer was re-elected managing director.

In his review of the year, Mr. Reis pointed out that prices for many important essential oils were quite stable during 1953, and current prices are generally on the low side. Demand for essential oils is much greater during periods of stability and when prices are not too high, Mr. Reis explained.

Difficulties in sampling essential oil imports on piers, and the loss involved in the procedure were discussed by F. F. Dittrich, chairman of the Essential Oil Association's import committee.

The scientific section of the association, which met earlier in the day of the annual meeting, discussed additions to and revisions of various oils for specifications and standards. The committee, which is under the direction of Dr. A. T. Fiore of Givaudan-Delawanna, Inc., New York, agreed on specifications for oils camphor, canaga, clary sage, linaloe wood, marjoram, pennyroyal, pimento leaf, Spanish sage and iso-bornyl acetate.

Newly elected officers of the Essential Oil Association of the U.S.A. include: president, Louis Gampert, center, Felton Chemical Co., New York; vice-president, Pierre J. Coutin, right, Roure DuPont, Inc., New York, and secretary-treasurer, F. F. Dittrich, Ungerer & Co., New York.

— ★ —

Hale Joins Polak's

Richard J. Hale, formerly a sales representative of American Alcolac Corp., Baltimore, recently joined the Chicago sales staff of Polak's Frutal Works, Inc., Middletown, New York. He is assisting A. H. Micheels, branch manager in Chicago. Mr. Hale attended De Paul University, Chicago.

— ★ —

New Gen. Chem. V.P.'s

Three new vice-presidents were appointed recently by General Chemical Division, Allied Chemical & Dye Corp., New York.

Vincent W. Suellau has been named vice-president in charge of sales; I. H. Fooshee, is vice-president in charge of development and Harry S. Bowen has been made vice-president and auditor.

A member of the General Chemical sales organization for 33 years, Mr. Suellau was appointed director of sales in 1950. Mr. Fooshee joined General Chemical in 1947, serving successively as assistant to the president, director of operations and director of development. Mr. Bowen, who has been with the firm since 1923, was made auditor in 1930 and assistant general manager in 1938.

Wiemer Universal Rep.

Paul Wiemer Co., Cincinnati, now represents Universal Detergents, Inc., Long Beach, Calif., in the Cincinnati area. The announcement was made recently by B. R. Bryant, general manager of Universal, makers of "Udet" and "Udex" surface active agents.

— ★ —

MM&R Advertising Head

The appointment of Bernard Jeffs as director of advertising for Magnus, Mabee & Reynard, Inc., New York, was announced last month. He was formerly vice-president in charge of sales and advertising for Reed Carnick, and account executive for Cortez F. Enloe, Inc., New York advertising agency.

Magnus, Mabee & Reynard, Inc., held its 23rd annual sales conference at the Warwick Hotel, New York, Feb. 10-13. Highlighted were the firm's research and development program, the expansion of its manufacturing facilities, and advertising and promotion plans.

— ★ —

Luther in New ADM Post

Archer-Daniels-Midland Co., Minneapolis, has appointed Carl Luther as head of a newly formed sales training department, it was announced recently by James W. Moore, vice president and general sales manager. Mr. Luther was previously in charge of ADM's packaged linseed oil sales.

Allied Advances Two

Appointment of Leon W. Seigle and Fred B. Johnson as manager and assistant manager, respectively, intermediate sales, National Aniline Division, Allied Chemical and Dye Corp., New York, was announced recently. Both men make their headquarters at the company's executive offices.

L. Seigle

F. Johnson

—★—

Court Rules Against P&G

A ruling that Procter & Gamble Co., Cincinnati, was not entitled to the return of photostated copies of its business records and notes made from other records was handed down recently by a federal judge. The records are in the possession of the Department of Justice in connection with a civil anti-trust trial pending against P&G and other soap and detergent producers. Federal Judge Modarelli, sitting in Newark, N. J., denied motions for the return of copies and writings and for the suppression of certain work sheets.

Procter & Gamble Co. in a test case for all the defendants in the suit, declared that the Department of Justice got the records under subpoenas for a Grand Jury investigation in Newark, which ended after 18 months with no indictments. The company maintained that the Grand Jury investigation was a "fishing expedition" to get evidence for the civil action which followed, and that the records therefore, were illegally obtained in violation of due process of law.

The court held that "the proper remedy is not the granting of this type of motion, which would probably result in an insurmountable obstacle to any civil action, but by direct attack at the outset of the criminal investigation.

Procter & Gamble and other defendants did attack the Grand Jury's subpoenaing the voluminous documents covering a 20-year period but were overruled by Chief Federal Judge Forman.

—★—

SOCMA Reelects Wagner

Dr. Cary R. Wagner of Phillips Petroleum Co., Bartlesville, Okla., has been reelected president of the Synthetic Organic Chemical Manufacturers Assn. Other officers and members of the association's board of governor's elected at SOCMA's annual meeting at the Hotel Commodore, New York, Dec. 9, include: first vice-president, Samuel Lehner, E. I. du Pont de Nemours & Co., Wilmington, Del.; second vice-president, R. Wolcott Hooker, Hooker Electrochemical Co., Niagara Falls, N. Y.; and treasurer, Henry L. Young, Interchemical Corp., New York. Chosen board members are Carl E. Van Winckel, Carwin Chemical Co., North Haven, Conn., and Leo B. Grant of Dow Chemical Co., Midland, Mich. Dr. Elvin H. Killheffer, formerly associated with E. I. du Pont de Nemours & Co., and Dr. August Merz of American Cyanamid Co., Bound Brook, N. J., were elected honorary members of the board for 1954.

U. S. Senator Styles Bridges, Republican of New Hampshire, told the group's dinner meeting that Congress would give careful attention to the problems faced by the chemical and other industries on both domestic and world markets.

—★—

Cos. Chemists Hear Heinrich

Dr. Hans Heinrich, director of research, Kolmar Laboratories, Milwaukee, was the featured speaker at the dinner meeting of the Society of Cosmetic Chemists, Chicago chapter, which was held February 9 at Heinrici's Restaurant. Dr. Heinrich outlined trends in the cosmetic industry and effects on future cosmetic products.

In New Shell Posts

The establishment of two new head office posts by Shell Chemical Corp., New York, was announced recently by C. W. Humphreys, manufacturing vice-president. One post deals with current manufacturing activities, the other with future developments in plants, processes and products.

A. Fleer

B. M. Downey

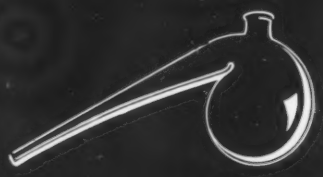
B. M. Downey, manager of the Shell Chemical plant at Houston, Tex., has been appointed manager of manufacturing and A. W. Fleer, manufacturing operations manager, has been named manager of research, development and engineering. Each reports directly to Mr. Humphreys.

Reporting to Mr. Downey, who joined Shell in 1925 at Martinez, will be managers of plants at Houston; Denver; Norco, La.; and Martinez, Dominguez and Torrance, Calif. He is also in charge of the head office manufacturing operations and industrial hygiene departments.

As manager of research, development and engineering, Mr. Fleer, who received his Ph.D. from the University of Michigan, is in charge of the company's research, economic evaluation and process engineering activities, as well as the engineering, design and construction of new plant facilities. The managers of the head office manufacturing development and manufacturing engineering departments report to him. Mr. Fleer went with Shell as a technologist in St. Louis in 1935. In 1944 he became technical assistant to the president of Shell Development Co. at San Francisco. He was appointed manager of manufacturing operations for Shell Chemical in 1952.

A New Light on Stearic Acid

Candles burn cleaner when made with a Stearic Acid of low ash content. Century Brand Stearic has the lowest ash content of any on the market today. Careful selection of raw materials and care in processing make Century Brand Stearic Acid the best for candles.



Stearic Acid Esters are whiter when made with Century Brand Stearic Acids because of their exceptional heat stability. Glycerol Monostearates with colors of 5 Yellow and 1.0 Red (5¼" Lovibond) have been produced with Century 1220 Double Pressed Stearic Acid without bleaching.

Cosmetic creams and lotions stay lighter when made with Century Brand Supra Grade Stearic Acid. An iodine value of less than 1 combined with excellent stability make Century the top Stearic Acid for cosmetics.

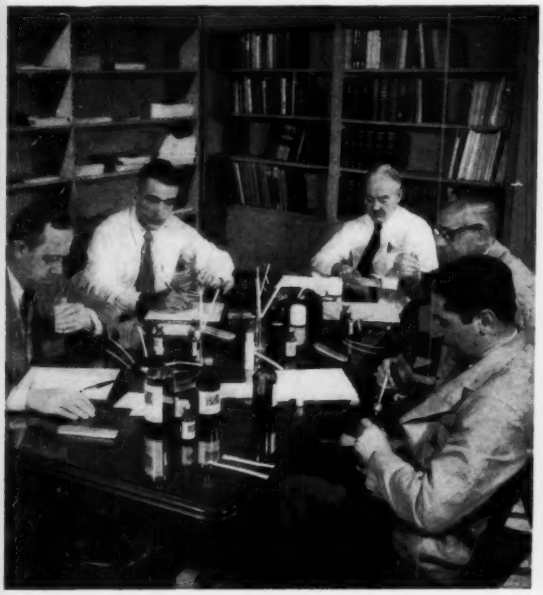
For these and other uses there is a grade of Century Brand Stearic Acid to meet your requirements.

W. C. HARDESTY, CO., Inc.

Century Stearic Acid Products, Inc.

41 EAST 42nd STREET, NEW YORK 17, N. Y.
PLANT: DOVER, OHIO
In Canada: W. C. Hardesty Co. of Canada Ltd., Toronto

How Givaudan's versatile service simplifies your perfuming problems



Suggestions and ideas in the creation or the selection of fragrances, as well as sound technical counsel are continually being provided to customers by Givaudan's experienced staff.

Perfuming an entire product line—a task calling for knowledge of the behavior of various aromatic combinations in various media—is an important Givaudan service.

Knowledge of consumer preferences, gained from long experience, enables Givaudan to help develop perfumes for either a "class" or a "mass" market.

Compatib
such as
possible
complete

Compatibility tests under varying conditions, such as heat, light, air and humidity make it possible for you to use Givaudan aromatics with complete confidence in their performance.

World-wide resources, with manufacturing plants in Switzerland, France, Italy, England and Brazil, enable Givaudan to supply uniform-quality materials throughout the world.

Givaudan's service laboratories work creatively with customers to develop the best fragrances quality-wise, — and the most appropriate to their lines.

The ability to handle any fragrance problem is one of the reasons why customers find Givaudan's service both economical and efficient.

GIVAUDAN

Better perfume materials through constant research and creative ability

GIVAUDAN - DELAWANNA, INC.
330 West 42nd Street · New York 36, N.Y.

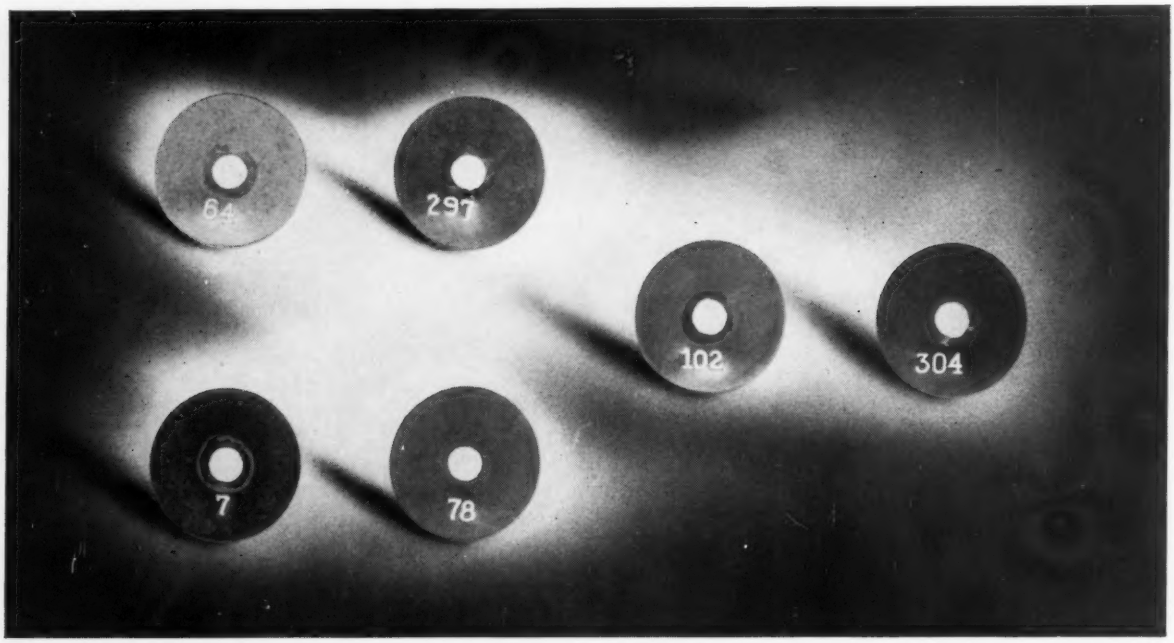
Branches: Philadelphia · Boston · Cincinnati · Detroit
Chicago · Seattle · Los Angeles · Toronto

PQ® SILICATES REDUCE CORROSIVE ATTACK

Do your detergents attack metals, enamels and glazes? Your answer to this problem can be found in using a PQ Silicate. Yes, PQ Silicates greatly improve cleaning efficiency, but they also are outstanding in preventing corrosion. Their soluble silica component protects metals such as aluminum, tin, zinc, brass, copper and enamels and glazes.

Use PQ Liquid Silicates in your spray-dried detergents, or the PQ Powdered Silicates in dry mixtures. They are compatible with synthetic detergents, phosphates, carbonates and soaps.

For soap and detergent manufacturers—new bulletin "PQ Silicates in Modern Detergents and Soaps." Ask for a copy on your letterhead.



Zinc discs exposed in solutions as noted. Time: 2 hours; Temperature: 140°F.

Effect of Metso 99 in reducing corrosive action of synthetic detergents combined with phosphates.

DISC	SOLUTION CONCENTRATION	WEIGHT LOSS MG. PER SQ. DEC.
#7	.2% alkyl aryl sulfonate	31
#64	.2% alkyl aryl sulfonate + .2% tripolyphosphate	63
#297	.2% alkyl aryl sulfonate + .2% tripolyphosphate plus .14% Metso 99	6
#102	.2% alkyl aryl sulfonate + .2% pyrophosphate	63
#304	.2% alkyl aryl sulfonate + .2% pyrophosphate plus .2% Metso 99	11
#78	.2% alkyl aryl sulfonate + .2% Metso 99	1

METSO

PQ® Silicates of Soda

METSO® DETERGENTS

PHILADELPHIA QUARTZ COMPANY, *1152 Public Ledger Bldg., Philadelphia 6, Pa.*

Worldwide Syndet Congress

The First International Detergent Congress is scheduled to meet August 30 through September 5 at the Sorbonne, Paris, France. Sponsor of the meeting is the Chambre Syndicale Tramagras. Sessions, divided into scientific, technical, applied, and economic groups, will cover pysiochemistry of surface active compounds, production, application in textiles, leather, furs, paper, laundering, sanitary and cosmetic products, pharmaceuticals, medicine and surgery, metallurgy, food, paints, varnishes, and elastomers.

Those wishing to deliver papers at the meeting are asked to send them in duplicate before March 15 to the Secretariat General du 1er Congres Mondial de la Detergence, 70 Champs Elysees, Paris 8ieme, France. Papers should not exceed 200 typewritten lines (exclusive of references) and text should be followed by a 15 to 20 line summary.

The congress aims at giving manufacturers of synthetic detergents an opportunity to compare various technics, to study actual and potential fields of application, and to evaluate economic significance of developments.

—★—

Food-O-Mat Changes Name

Food-O-Mat Corp., New York, changed its name to North American Equipment Corp. it was announced recently by Carl W. Shaver, president. The firm also moved from its former headquarters in New York City to larger premises at 250 Vreeland Avenue, Paterson, N. J.

—★—

Tidy Names Thompson

A. R. Thompson, formerly divisional sales manager for Lever Brothers Co., New York, was named recently as district sales manager for Tidy House Products Co., Shenandoah, Ia. He is heading the company's sales force in Michigan, northern Indiana and northwestern Ohio. Mr. Thompson succeeds P. J. Page of Pittsburgh, who has been named director of market research for Tidy House, which makes "Shina Dish" for dishwashing, "Perfex Super Cleaner," "Dexol Safety Bleach" and "Glass Tex Plastic Starch."

—★—

New Lauryl Sulfate

Sodium lauryl sulfate, claimed to exceed USP requirements, was introduced recently by Aceto Chemical Co., Flushing, N. Y., under the trade name "Solasol." The product is designed especially for use in shampoos, toothpastes, and cosmetic formulations.

—★—

Driscoll Succeeds Bobst

Alfred E. Driscoll, governor of New Jersey since 1946, has been named president and member of the board of directors of Warner-Hudnut Inc., New York, it was announced recently by Elmer H. Bobst, whom Mr. Driscoll succeeds as president. Mr. Bobst now serves as chairman of the board of directors and chief executive officer. Election of James C. Chilcott as vice chairman of the board was announced at the same time.

—★—

Healy in New Post

Appointment of Robert E. Healy as general manager of the New York office of McCann-Erickson, Inc., was announced recently. Before joining the advertising agency, Mr. Healy was vice-president in charge of advertising for Colgate-Palmolive Co., Jersey City, N. J.

Robert E. Healy

TGA Convention Plans

The Toilet Goods Association recently announced the following convention committee for the 19th annual meeting, to be held at the Waldorf-Astoria Hotel, New York, May 11-13: Co-chairmen: H. Robert Miller of White Metal Mfg. Co., Hoboken, N. J., and Kathryn R. Colton of Morningstar-Nicol, Inc., New York; committee members, Neva Bradley of Daggett & Ramsdell, Inc., Newark, N. J.; Chauncey M. Depew of Van Amerigen-Haebeler, Inc., New York; John L. Foy, Publicker Alcohol & Chemical Sales Corp., Philadelphia; Carolyn Jackson of Hudnut Sales Co., New York; Frances A. Kiernan, C. H. Forsman Co., New York, Norman Liman of Lord Baltimore Press, New York; Margaret Ryan of Parfums Schiaparelli, Inc., New York, and Lee H. Simmons of Imco Container Corp., New York.

The convention will be restricted to members of the T.G.A. and their guests in certain approved categories.

The Toilet Goods Industry Golf Tournament will be held Monday, May 10 at Winged Foot Golf Club, Mamaroneck, N. Y.

—★—

Givaudan Sales Meeting

Givaudan Flavors, Inc., New York, held a meeting of its eastern sales personnel last month. The firm's sales and promotion programs and research and development plans for 1954 were discussed. E. R. Durrer, president, R. E. Horsey, vice president in charge of sales, H. P. Kessler, sales manager, and Leonard Stoller, advertising manager, spoke on administrative and advertising procedures.

—★—

Swenson Advances Scanlan

William F. Scanlan has been appointed chemical sales engineer for the Swenson Division, Whiting Corp., Harvey, Ill., it was announced recently. Mr. Scanlan joined Swenson Evaporator Co. in 1945. In his new post he is stationed at the firm's Philadelphia district office in Ardmore, Pa.

FTC Bans Antell Claims

The Federal Trade Commission, Washington, D. C., recently issued an order requiring Charles Antell Co., Baltimore, its officers and advertising agency to stop what the F.T.C. terms "false and misleading advertising" of "Charles Antell Formula No. 9," "Charles Antell Shampoo" and "Hexachlorophene Soap."

The action represents affirmance of a hearing examiner's initial decision.

Among other things, the order forbids claims that "Formula No. 9" will prevent baldness or loss of hair; restricts claims concerning the lanolin content; bans advertising representing that the hormone content of "Charles Antell Shampoo" has any cleansing action on the hair; prohibits alleged misrepresentation of the effectiveness of "Hexachlorophene Soap"; and outlaws misrepresentation of regular prices as "reduced prices."

—★—

P. R. Dreyer Moves

P. R. Dreyer, Inc., New York essential oil and aromatic chemical firm recently moved to new quarters at 601 W. 26th St., New York 1. The firm formerly was located at 119 W. 19th St. The telephone number is WAtkins 9-1570.

—★—

In New Monsanto Posts

The appointment of William H. Winfield to the newly created post of director of marketing research for Monsanto Chemical Co., St. Louis, was announced recently by Charles Allen Thomas, president. Mr. Winfield joined Monsanto in 1947 and has been director of business research for the organic chemicals division for the past three years.

At the same time Shea Smith III, director of business research for the Merrimac division, was named assistant director of marketing research. Prior to joining Monsanto in 1942 Mr. Smith worked with the Arthur D. Little Co., Cambridge, Mass.

David L. Eynon, Jr., assistant general manager of the organic chemicals division, has been appointed assistant to the vice president who has functional control of the company's manufacturing activities. Mr. Eynon came to Monsanto in 1933, and has been in his present assignment since 1949.

—★—

Davison Exec. Changes

R. L. Hockley has resigned as president of Davison Chemical Corp., Baltimore, to become vice president of Mathieson Chemical Corp., Baltimore, it was announced recently by Thomas S. Nichols, Mathieson president. Mr. Hockley is succeeded as president of Davison by Marlin G. Geiger, formerly vice chairman of the board. Mr. Geiger's previous responsibilities have been assigned to William B. McCloskey, vice-president of Davison.

—★—

Named by General Mills

Carl W. Weber has been appointed sales assistant in the chemical division of General Mills, Inc., Minneapolis, it was announced Jan. 25, by Abner C. Hopkins, Jr., director of chemical sales. Mr. Weber is responsible for office operations of the division's sales department at Kankakee, Ill. He joined General Mills in 1935 after receiving his bachelor of commercial science degree from the University of Notre Dame in the same year. He has served as office manager and sales assistant in the company's grocery products district office at Chicago and as administrative assistant to the sales manager of the west central grocery products region.

—★—

Retires from Solvay

D. O. Yeoman, director of development for Solvay Process Division, Allied Chemical & Dye Corp., New York, for the past eight years, retired January 31. Mr. Yeoman had joined the firm approximately 41 years ago. He is succeeded by Cortez P. Hackett, who started his service with Solvay as an engineer in 1923. Mr. Hackett's most recent posts were chief engineer and assistant director of development.

FTC Order Against Puro

An order was issued recently by the Federal Trade Commission against Louis Shapiro, trading as Puro Company, Chicago, requiring Mr. Shapiro to stop representing as the customary price of its water softening cleanser Puro any price in excess of the price at which it is regularly sold. It also prohibits representations that any article is given free or as a gift or without cost where some or all of its cost has been added to the regular price of other merchandise required to be purchased as a condition for receiving the so-called free article.

For several years, the commission said, Shapiro used the theme "Buy One—Get One Free" in newspaper advertisements and coupons and on Puro packages. After conferences with representatives of the Chicago Better Business Bureau and the FTC, modifications were made in the advertising, but, the commission said, the company continued to represent that the usual retail price of Puro is 25 cents per package and that if one package is purchased at that price, a second will be given without cost.

Characterizing these claims as false, misleading and deceptive, the commission reported: "The record discloses that Puro is regularly sold in retail grocery stores at two packages for 25 cents. There is no evidence in the record that a single package was ever sold for 25 cents."

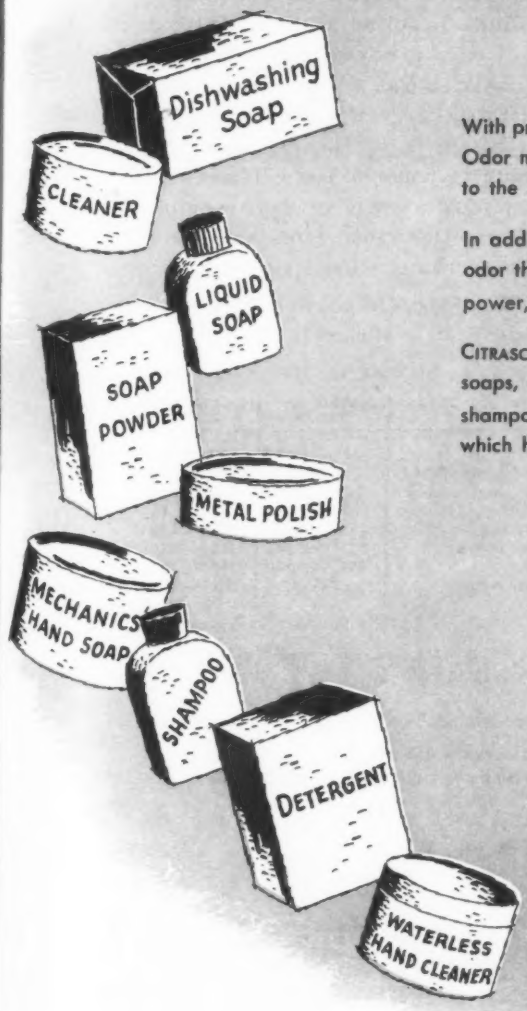
—★—

Bobst to Cancer Council

Elmer H. Bobst, president and general manager of Warner-Hudnut, Inc., New York, has been appointed a member of the National Advisory Cancer Council, it was announced recently by Surgeon General Leonard A. Scheele of the Public Health Service, Department of Health, Education and Welfare, Washington, D. C. As a member of the National Advisory Council, Mr. Bobst will advise and make recommendations to the Surgeon General regarding program activities of the National Cancer Institute. This is one of the seven divisions of the National Institutes of Health.

A POWERFUL, REFINED *Lemon-Type Reodorant*

more stable... more uniform in odor value... and only ⅓ the cost of natural Oil of Lemon!



With prices of natural Oil of Lemon going sky-high, using our new CITRASCENT Lemon-type Odor means a saving of approximately two-thirds—a figure that is *not* subject to the erratic price fluctuations so characteristic of the natural Oil.

In addition to its economical cost—CITRASCENT has a sweeter, much more refined odor than Oil of Lemon. It provides freedom from discoloration in soap... has greater power, lasting qualities and lift . . . is more uniform and stable in odor value!

CITRASCENT may be used in brown bar soap, white soap, soap chips, dishwashing soaps, cleaners, liquid soaps, soap powders, metal polishes, mechanics' hand soap, shampoos, detergents, waterless hand cleaners and in many other products which have an objectionable odor. It is available at the following prices:

1 lb. lots	$2.15 lb.
5/10 lb. lots	$1.90 lb.
25 lb. lots	$1.85 lb.
50/100 lb. lots	$1.80 lb.
400 lb. drums	$1.75 lb.

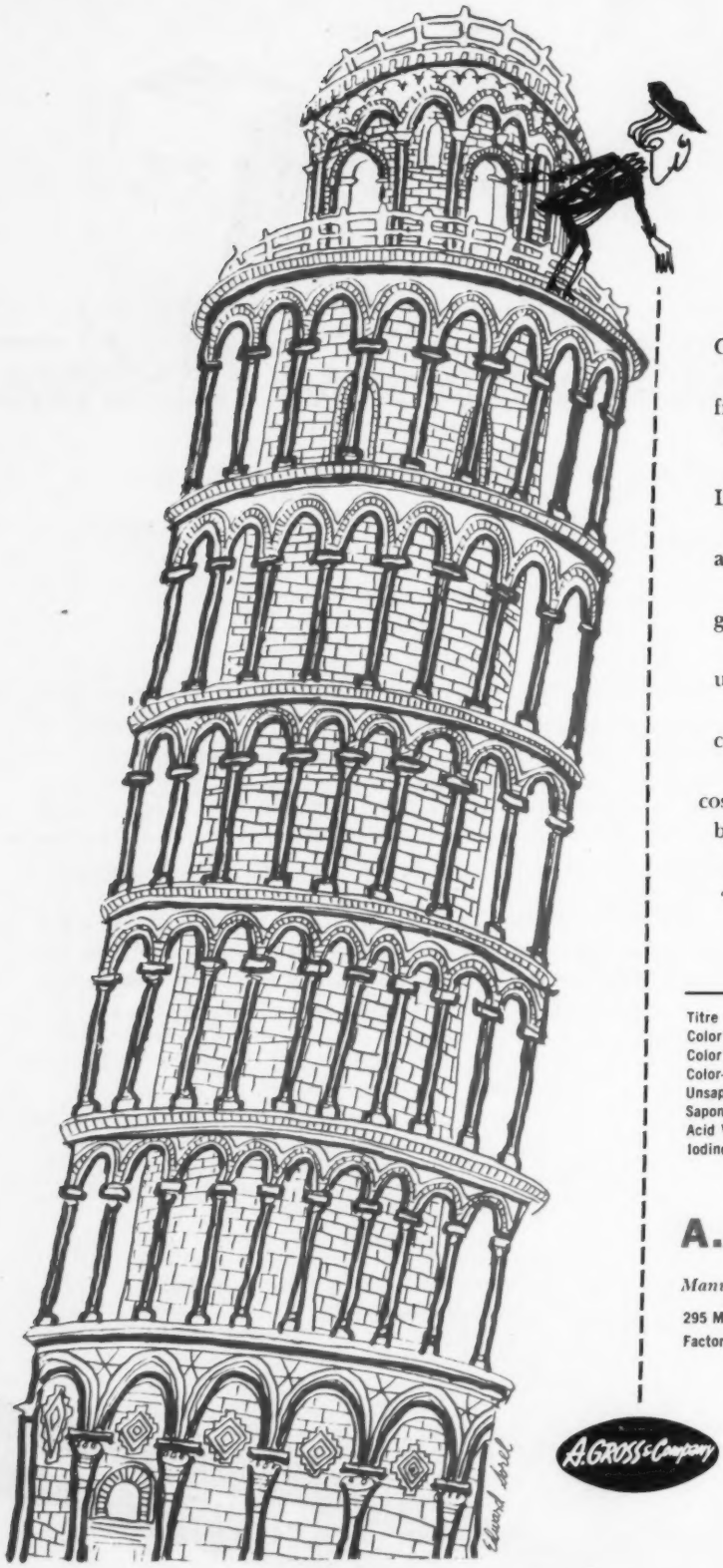
F.O.B. New York

Why not make your own tests! We'll be glad to send you free samples. No obligation, of course.

AROMATIC PRODUCTS, Incorporated

15 EAST 30th STREET • NEW YORK 16

CHICAGO • DALLAS • MEMPHIS • PITTSBURGH • LOS ANGELES • BOSTON



look... and **see**

GALILEO watched a ball fall from the Tower of Pisa. Much was learned from this seemingly simple experience. You, too, can learn much from what may appear to be a simple experience. Let A. Gross & Company supply you with the Coconut Fatty Acids that you need and you will see that due to our modern distillation plant the regular distilled grade is equal to many double distilled materials. You will find that the uniform special grade has had most of the caproic, caprylic and capric constituents removed. You will learn how you can save money by eliminating costly formulation changes made necessary by Coconut Fatty Acids of poor quality.

Send for samples and our catalog "Fatty Acids in Modern Industry."

	GROCO 24 REGULAR	GROCO 26 SPECIAL
Titre	22° — 25°C.	26° — 28°C.
Color 5¼" Lovibond Red	1 — 3	1 — 3
Color 5¼" Lovibond Yellow	8 — 12	8 — 12
Color—Gardner 1933	2 — 4	2 — 4
Unsaponifiable	0.25% — 0.50%	0.25% — 0.50%
Saponification Value	261 — 270	250 — 257
Acid Value	260 — 269	250 — 257
Iodine Value (WIJS)	6 — 12	8 — 14

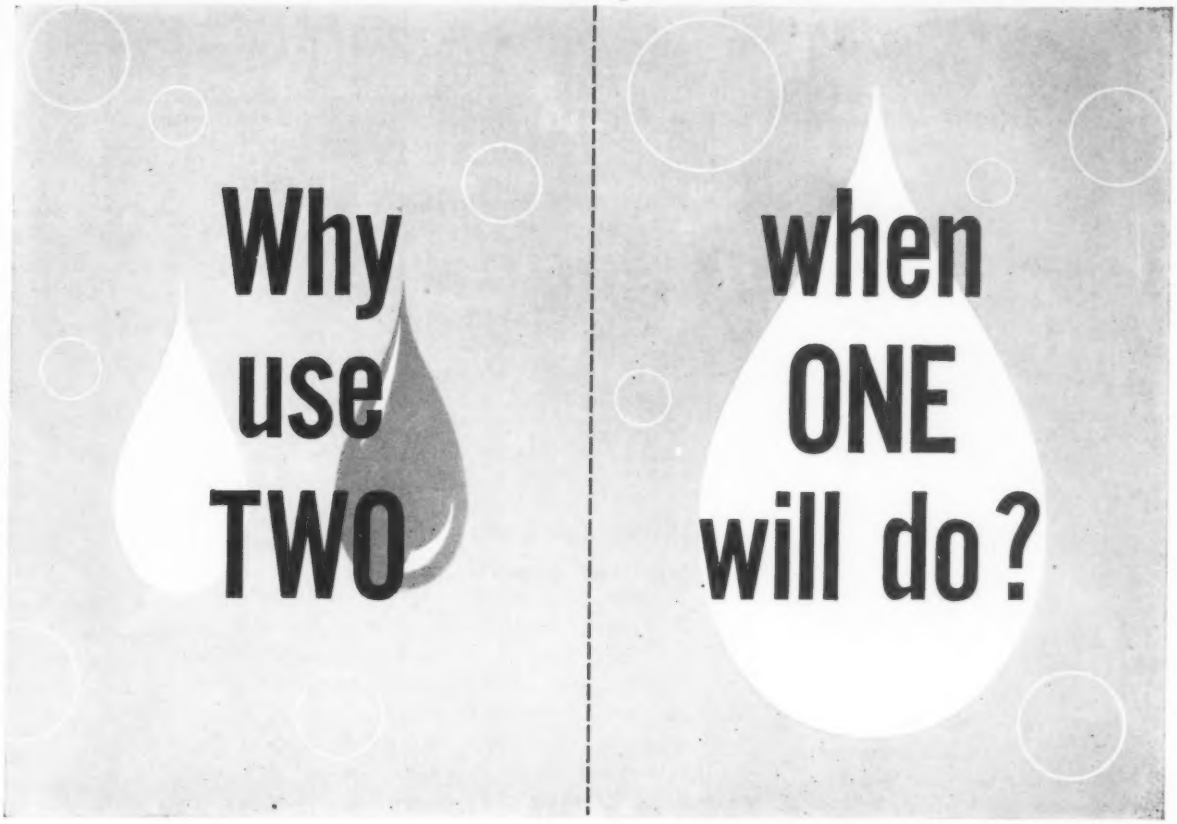
A. GROSS & Company

Manufacturers Since 1837

295 Madison Ave., New York 17, N. Y.

Factory: Newark, N. J. Distributors in Principal Cities

A. GROSS & Company



NOW—ONE QUALITY DETERGENT MAKES TWO TYPES OF SHAMPOO!

NEW DU PONT "DUPONOL" EP is the first detergent on the market to formulate readily into both clear liquid and liquid-cream shampoos. Make one . . . make the other . . . make both . . . from the same fine cosmetic-grade detergent.

Use it in a clear liquid. "DUPONOL" EP gives you:
a low cloud point . . .
body plus a high order of uniformity . . .
excellent foaming characteristics—even in hardest water . . .
a light color, stable to heat and light.

Use it in a liquid-cream. "DUPONOL" EP gives you:
superior foaming characteristics . . .
high uniformity . . .
a light, stable color . . .
easy adaptability into the popular "pearlescent" sheens.

"DUPONOL" EP is kind to hair and scalp. When properly formulated, it cleans hair thoroughly, yet its gentle action doesn't "dry out" the natural oils so essential to hair and scalp.

Free! For your use! Du Pont has developed dozens of shampoo formulas centering upon "DUPONOL" EP—and more are to come. Send TODAY for "'DUPONOL' EP SHAMPOO FORMULATIONS," a complete guide for your use of this new two-in-one product. E. I. du Pont de Nemours & Co. (Inc.), Dyes and Chemicals Division, Wilmington 98, Delaware.

DU PONT *Duponol* **EP**
REG. U. S. PAT. OFF.
DETERGENT

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Fragrance is the Signature of your product!

FLOWER OIL *White Lilac*

The *perfect* Lilac for toilet waters, perfumes, lipsticks or other cosmetic preparations. As produced by Verona — White Lilac captures and *holds* for your product all the delicate, springtime fragrance of the fresh-picked flower itself.

This is one of the many outstanding Verona fragrances that is helping market leaders on their road to success.

Here are a few others — try them in your present oils, and note the marked improvement:

- **ALDINE VERONA** . . With only ½ to ¾% you'll hit an exciting new aldehydic topnote.
- **RESEDALIA** . . . . . To make your Lily and Lilac scents come thrillingly alive . . . add ½ to ¾%.
- **CYCLAMAL** . . . . . Add up to 5% . . . for a cleaner, crisper impact.
- **CUMIN KETONE** . . See how only ¼ to ½% added to your present floral fragrance heightens and freshens the effect.

Sole Representatives in the U. S. for J. and E. SOZIO, Grasse, France
Natural Absolutes • Resinoides • Essential Oils

USE VERONA PRODUCTS TO BUILD SALES FOR *Your* PRODUCTS

AROMATICS DIVISION
VERONA CHEMICAL COMPANY

26 Verona Avenue, Newark, N. J. 208 North Wells Street, Chicago, Ill.

Bids and AWARDS

K. C. FSS Soap Awards

In a recent opening for soap by the Federal Supply Service, Kansas City, Mo., the award on item one went to Iowa Soap Co., Burlington, Ia., with a bid of 7.5 cents; on items two and three to General Soap Co., Chicago, with a bid of 20.3 cents.

In another opening for soap by the same agency the winning bid of 6.8 cents on item one was also submitted by Iowa Soap Co. Stahl Soap Corp., Brooklyn, N. Y., bid 11.27 cents on item three. No award was made for item two.

—★—

Iowa Low Soap Bidder

Iowa Soap Co., Burlington, Ia., submitted the low bid of 10.25 cents in a recent opening for laundry soap by the Federal Supply Service, Washington, D. C.

—★—

VA Alkali Awards

Sterling Supply Corp., Philadelphia, and Wyandotte Chemicals Corp., Wyandotte, Mich., were the successful bidders in a recent opening for laundry alkali by the Veterans Administration, Washington, D. C. Sterling won the award on item one with a bid of $6.48; Wyandotte on items two and three with a bid of 7.883 cents and 7.172 cents, respectively.

—★—

Sweep Compound Bid

Banner Chemical Products, Newark, N. J., submitted the low bids in a recent opening for sweeping compound by the Federal Supply Service, New York. Banner bid 3.29 cents on item one and 1.83 cents on item two.

—★—

Glycerine Awards

In a recent opening for glycerine by the Armed Services Medical Procurement Agency, Brooklyn, N. Y., Vegetable Oil Products Co., Los Angeles, received the award on 3,480 cans with a bid of $4.11; Whitehall Pharmacal Co., New York, on 6,120 cans with a bid of $4.20.

—★—

Detergency Tester Bids

In a recent opening for one detergency tester by the Quartermaster, Philadelphia, two bids were received. United States Testing Co., Hoboken, N. J., offered a "Tergotometer" (alternate item) for $985 and American Conditioning House, Inc., Boston, offered a detergency tester for $1,788.69 but specified that delivery date cannot be met.

—★—

Soap Awards to Iowa

In a recent opening for soap by the Federal Supply Service, Kansas City, Mo., Iowa Soap Co., Burlington, Ia., received the award on item two with a bid of 8.2 cents; Purity Soap & Chemical Co., Minneapolis, on item three with a bid of 7 cents; no award was made for item one.

—★—

Laundry Soap Bid

Laundry soap powder, item 1, 15,460 pounds; item 2, 17,500 pounds; and item 3, 6,000 pounds was included in a recent opening by the General Services Administration, New York. Pal Products Manufacturing Corp., Brooklyn, N. Y. submitted the low bid of 5.1 cents on item 1; Sterling Supply Corp., Philadelphia, submitted the low bids on items 2 and 3 of 8.7 cents and 11.48 cents, respectively.

—★—

Turco Wins Award

Turco Products, Los Angeles, won the award in a recent opening for metal cleaner by the Pine Bluff Arsenal, Ark., with a bid of 8.35 cents.

—★—

FSS Soap Bids

Lever Brothers Co., New York, submitted the low bid of 8 cents on laundry soap and Industrial Soap Co., St. Louis, Mo., the low bid of $6 on toilet soap, (300 three-ounce cakes to case) in a recent opening for miscellaneous supplies by the Federal Supply Service, Washington, D. C.

—★—

Euclid Submits Lowest Bid

Euclid Chemical Co., Cleveland, O., submitted the low bid of 82.77 cents on 50,000 gallons of mothproofing compound, included in a recent opening for miscellaneous supplies by the Quartermaster, Philadelphia.

—★—

QM Wax Award

National Industrial Supply Co., East Point, Ga., submitted the winning bid of 48.5 cents on item one in a recent opening for liquid wax by the Army Quartermaster, Camp Gordon, Ga.

—★—

Moore Expands Board

John B. Moore Corp., Nutley, N. J., recently announced election to board membership of John A. Campbell and his appointment as vice-president in place of Myra H. Moore, who resigned. Two additional directorships were created to be filled at the annual meeting of stockholders. At the same time appointment of I. John Snider of Detroit as sales engineer for the lower Michigan area was announced.

Four of Moore's solvents for use in maintenance and overhaul of electrical and mechanical equipment were certificated for use as articles of stores on board vessels by the U. S. Coast Guard. They are "Per-Trolene," "Frigisol," "Cinceclene," and "Oxylene" or Solvent M-2, M-3, M-5, and M-6, respectively.

—★—

Flameproof Cloth

A flameproof cotton nonwoven disposable towel for industrial use was announced recently by Leshner Corp., Hamilton, O. The cloth is patented and measures 12 x 18 inches. It can be cut to individual specifications. It sells for 1½ cents each in colors and 2¼ cents each in white. Output is expected to reach 3,000,000 towels per day by early 1954.

NEW Trade Marks

THE following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12(a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the *Gazette*. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of $25 must accompany notice of opposition.

Staley's Cubes—This for laundry starch. Filed February 13, 1952 by A. E. Staley Manufacturing Co., Decatur, Ill. Claims use since 1935.

Pur-O-San—This for germicide and wetting agent. Filed June 20, 1952 by Bradford Chemical Co., Bradford, Pa. Claims use since August 1, 1949.

Bromicide—This for bactericide for use in dairy, food and beverage industries. Filed February 24, 1953 by Hydropulser Corp., Oak Park, Ill. Claims use since February 2, 1953.

Austin's Safe Bleach—This for textile bleach. Filed May 8, 1953 by James Austin Co., Mars, Pa. Claims use since September 11, 1952.

Hi-Lethol 10—This for germicide and deodorant. Filed April 27, 1953 by Vineland Poultry Laboratories, Vineland, N. J. Claims use since on or about January 10, 1948.

Ful-Aire—This for air deodorant. Filed May 19, 1953 by Fuller Brush Co., Hartford, Conn. Claims use since on or about January 31, 1951.

Penresina—This for powdered rosin with diluent for use in polishes, cleaning compounds, disinfectants, soaps, etc. Filed June 11, 1953 by S. B. Penick & Co., New York. Claims use since May 25, 1953.

GX—This for insecticides. Filed June 11, 1953 by Pittsburgh Coke and Chemical Co., Pittsburgh, Pa. Claims use since February 20, 1953.

Texy—This for general household cleaner. Filed June 3, 1953 by Texize Chemicals, Greenville, S. C. Claims use since September 1, 1952.

Pure-sure — This for insect spray, etc. Filed September 29, 1950 by Pure Oil Co., Chicago. Claims use since June 1946.

Modern Home—This for cedar spray, deodorizing spray, insecticidal spray, and mothproofing spray for household use. Filed January 21, 1953 by Modern Home Products Co., Chicago. Claims use since October 7, 1952.

Dove—This for washing powders and detergents in bar form for toilet use. Filed August 7, 1953 by Lever Brothers Co., New York. Claims use since December 27, 1945.

Cook—This for self polishing floor wax, scouring cleaner, soap flakes, soap granules, soap scouring pads, and bowl cleaners. Filed January 6, 1950 by Cook Coffee Company, Cleveland, O. Claims use since March 1935.

Aura—This for detergent for dishwashing and other washing and cleansing operations. Filed September 19, 1951 by Calgon, Inc., Pittsburgh, Pa. Claims use since August 14, 1951.

Allamanda — This for soap. Filed March 11, 1953 by Elizabeth Arden Sales Corp., New York. Claims use since January 3, 1926.

Office Pax—This for powdered skin cleanser. Filed April 10, 1953 by G. H. Packwood Manufacturing Co., St. Louis, Mo. Claims use since December 3, 1935.

Detisol—This for cleaning for surgical instruments. Filed June 16, 1953 by Schenley Laboratories, Inc., New York. Claims use since March 13, 1953.

Staff—This for shampoo. Filed June 18, 1953 by Colgate-Palmolive Co., Jersey City, N. J. Claims use since October 27, 1952.

Cue—This for shampoo. Filed June 22, 1953 by Colgate-Palmolive Co., Jersey City, N. J. Claims use since March 30, 1953.

Duntra—This for dirt, grease, rust, corrosion, and water stain remover from metal, ceramic, tile and other surfaces. Filed June 17, 1952 by Duntra Laboratories, New Brunswick, N. J. Claims use since January 1950.

OGP—This for spot remover of oil, grease, paint, shellac, rosin, etc. Filed by Eaton Chemical and Dyestuff Co., Detroit. Claims use since November 3, 1952.

Perolin—This for compound for use with fresh or salt water to cleanse surfaces of oil and grease, for drain pipe cleaner, etc. Filed January 6, 1953 by Perolin Co., Dover, Del. and New York. Claims use since March 1, 1947.

— ★ —

Aerosol Shave in U.K.

A pressure packed shaving cream, trade named "Rise" is being sponsored by Pretested Products Ltd., an English company controlled by Carter Products Co., New York, which makes and sells the product in the U. S. The pressurized container with push button control is the initial selling theme in a strong press advertising campaign with London as the main target. The British version of "Rise" is $1.00.

New Phosphate Division

The establishment of a new phosphate chemicals division of International Minerals & Chemicals Corp., Chicago, headed by Howard F. Roderick, was announced late last month by Louis Ware, president. The operations of the new division include a plant near Bartow, Fla., that recently went into operation and plants at Wales, Tenn. and Tupelo, Miss. Heretofore the operation of these plants has been a part of the corporation's phosphate division.

International now has two phosphate divisions. The phosphate minerals division is headed by George W. Moyers, vice-president who has been in charge of the phosphate division. He is responsible for the mining and refining of phosphate ores in Florida and Tennessee. The new phosphate chemicals division, headed by Mr. Roderick, who came to International as a vice-president from Wyandotte Chemicals Corp., Wyandotte, Mich., is to produce phosphate and sell chemicals. Mr. Roderick had been director of sales for Wyandotte's Michigan Alkali Division since 1950.

— ★ —

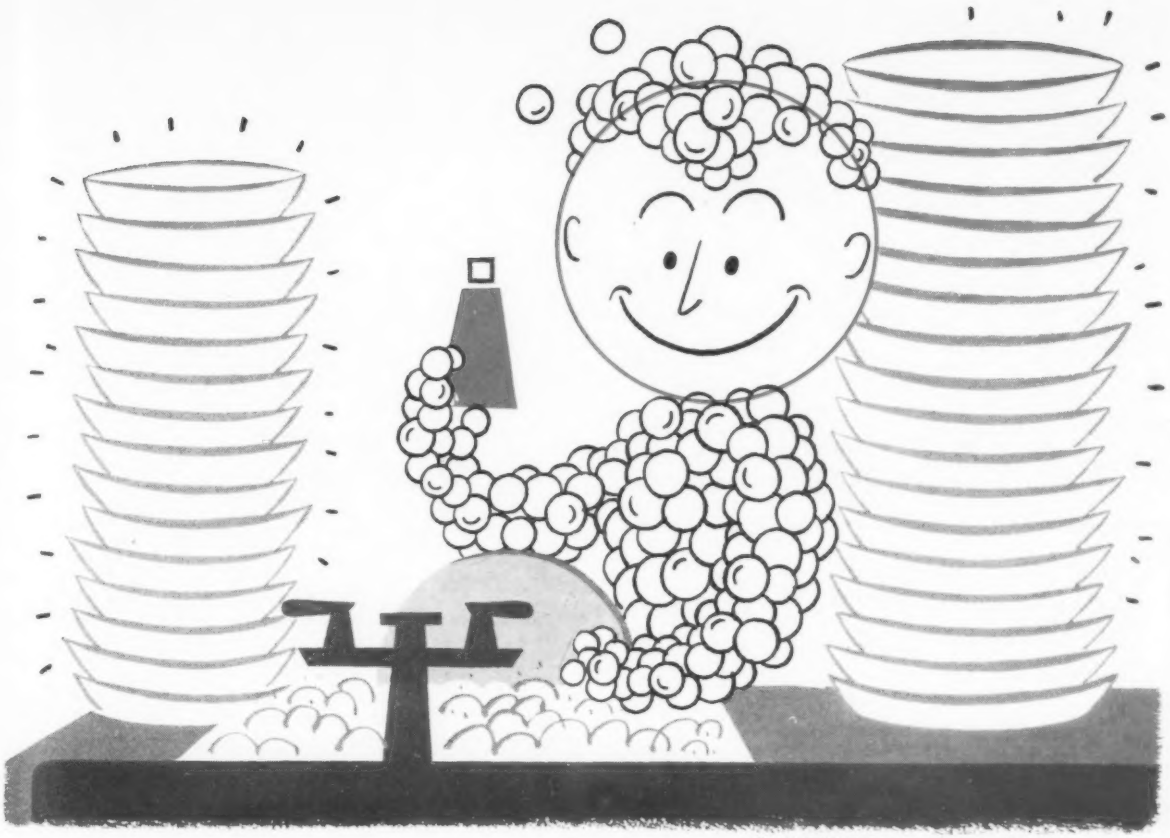
Represents Hydrocarbon

Millmaster Chemical Corp., New York, represents Hydrocarbon Chemicals, Inc., Newark, N. J., as exclusive selling agent for sulfonic acid, sulfonates, and related products. The arrangement became effective January 1. Hydrocarbon invites inquiries for products which can be integrated with its equipment, specially designed for large and small tonnage production of a diversified line of these products.

— ★ —

Retires from Canco

S. S. Jacobs, design supervisor of the closing machine department of American Can Co., New York, retired recently after 45 years of service. Mr. Jacobs intends to establish a consulting service on the Pacific Coast for the development, design and production of food and packaging machinery.



The ULTRAWETS wet, penetrate, clean, emulsify

TURNING LIQUID SUDS INTO SOLID SALES

Modern household shoppers appreciate a good thing when they find it. That's why the demand for new liquid dishwashing detergents is increasing so rapidly.

Look at the advantages: greater economy, no sneeze, no sink scum, instant solubility, pleasant odor, easy handling. These are features that can mean extra volume for you on the retail sales front. And many of today's fastest selling liquid detergent brands are formulated with liquid ULTRAWETS—products of the Atlantic Refining Company.

But there are other advantages the ULTRAWETS offer—advantages of special interest to you. Economy is one. In tank car or bulk lots, you can buy liquid ULTRAWETS at significantly low prices. And the high performance characteristic of the ULTRAWETS means you can save on the quantity you need.

Let us send you complete information on the ULTRAWETS. We can supply you formulations, or help you develop your own. Send coupon, or write.

Philadelphia, Providence, Charlotte, Chicago
In the West: L. H. Butcher Co.
In Canada: Naugatuck Chemicals Division of Dominion Rubber Company, Ltd.
In Europe: Atlantic Chemicals SAB, Antwerp, Belgium

ATLANTIC
PETROLEUM
CHEMICALS

THE ATLANTIC REFINING COMPANY
Dept. E-1121, Chemical Products Sales
260 South Broad Street, Philadelphia 1, Pa.

Please send me information on the liquid ULTRAWETS for use in dishwashing.

Name _____
Firm _____
Street _____
City _____ *Zone* _____ *State* _____

Since the Days of the "Gold Rush..."

Soapers have depended on WH&C ...for Raw Materials of Quality

SINCE 1838, we've been supplying the nation's "soapers" with basic raw materials.

CHECK YOUR NEEDS FROM THIS LIST

•

VEGETABLE OILS

Babassu, Castor, Cocoanut, Corn, Cottonseed, Olive, Palm, Peanut, Sesame, Soybean

•

ANIMAL FATS

Sperm Oil, Oleo Stearine, Lard Oil, Neatsfoot Oil, Grease, Tallow, Lanolin

•

FATTY ACIDS

Red Oil, Tall Oil, Tallow
Stearic Acid
Hydrogenated Fatty Acid
Cottonseed and Soybean Fatty Acids

•

ALKALIES

Caustic Soda, Solid, Liquid, and Flake; Soda Ash, Light and Dense
Carbonate of Potash, calcined and hydrated
Calcium Chloride
Tri Sodium Phosphate
Tetra Pyro Phosphate
Quadrafos Granular and Beads—a stable polyphosphate for water conditioning and mild but effective detergency.

SILICATE OF SODA—Liquid powdered and solid.

METSO* 200—(Sodium Orthosilicate)

METSO* ANHYDROUS—(Anhydrous Silicate of Soda)

METASILICATE—"Metso"* Granular.

METSO* DETERGENTS—*55, 66, 99.*

MAYPONS—Unique surface active agents; prolific foam; high detergency and emulsifying powers; suitable for cosmetic and industrial use.

AIR DRYETTES • **CHLOROPHYLL**

**Reg. U. S. Pat. Off., Phila. Quartz Co.*

Let us mix your dry private formulas

Established 1838

Welch, Holme & Clark Co., Inc.

439 WEST STREET NEW YORK 14, N. Y.

Warehouses in New York and Newark, N. J.

LOOK at the sales advantages offered your product by G-11®

(Brand of Hexachlorophene)

The market for products containing G-11 is an established, growing market with virtually unlimited opportunities for profitable development.

Few products have ever been studied so exhaustively and given such unanimous acclaim by authorities. G-11 is recognized as the proven, effective and non-irritating antiseptic chemical that offers outstanding hygienic and deodorizing advantages.

Years of safe, successful use by millions of people assure the continued success of your products containing G-11.

As the originator and producer of G-11, Sindar offers you the benefits of its scientific knowledge, practical marketing experience and technical service in using it to the best advantage in your soaps, detergents and cosmetics.

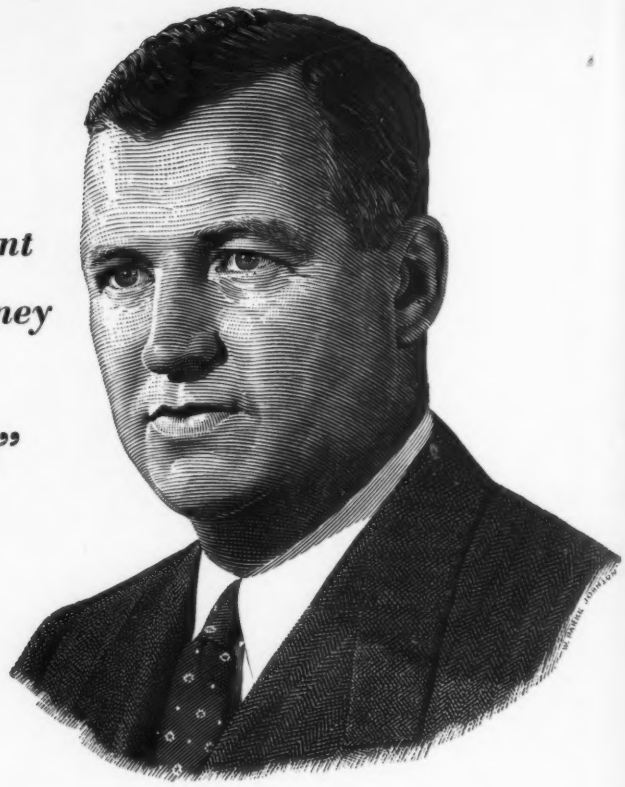
Bulletins are available on:

- **Physical and Chemical Properties**
- **Toxicological Properties**
- **Bacteriological Properties**
- **Cosmetic Use**
- **Soap and Detergent Use**
- **Literary Abstracts**

SINDAR® Corporation
Industrial Aromatics and Chemicals
330 West 42nd Street • New York 36, N. Y.

Branches: Philadelphia • Boston • Cincinnati
Detroit • Chicago • Seattle • Los Angeles • Toronto

"Wise public debt management with its goal of sound money is of prime concern to every American."



MUNDY I. PEALE
President
Republic Aviation Corporation

"Wise public debt management with its goal of sound money is of prime concern to every American. Regular purchase of U. S. Savings Bonds contributes importantly to the achievement of this objective and, at the same time, helps assure our future security, individually and as a nation. We at Republic Aviation feel a deep sense of pride in the knowledge that 94% of all our employees became investors as a result of our most recent campaign and that $631,000 in bonds are purchased each month on our automatic Payroll Savings Plan."

Perhaps the importance of U. S. Savings Bonds and the Payroll Savings Plan as factors in wise debt management and the achievement of sound money may not have occurred to you.

Here are a few facts and figures:

• For every dollar of public debt held by a commercial bank, about five new dollars may be created in the form of credit. Obviously, the larger the amount of the public debt held by individuals, the greater the check on inflationary tendencies.

• At the end of 1953, the cash value of Series E and H Bonds *held* by individuals was more than 36 billion dollars. This total is growing steadily, thanks largely to the month after month purchases of Series E Bonds by more than 8,000,000 Payroll Savers.

• Sales of E and H Bonds in 1953—23% higher than in 1952—provided cash for *all* E and H Bond maturities and redemptions and still left over $210,000,000 *net* for the reduction of bank-held debt.

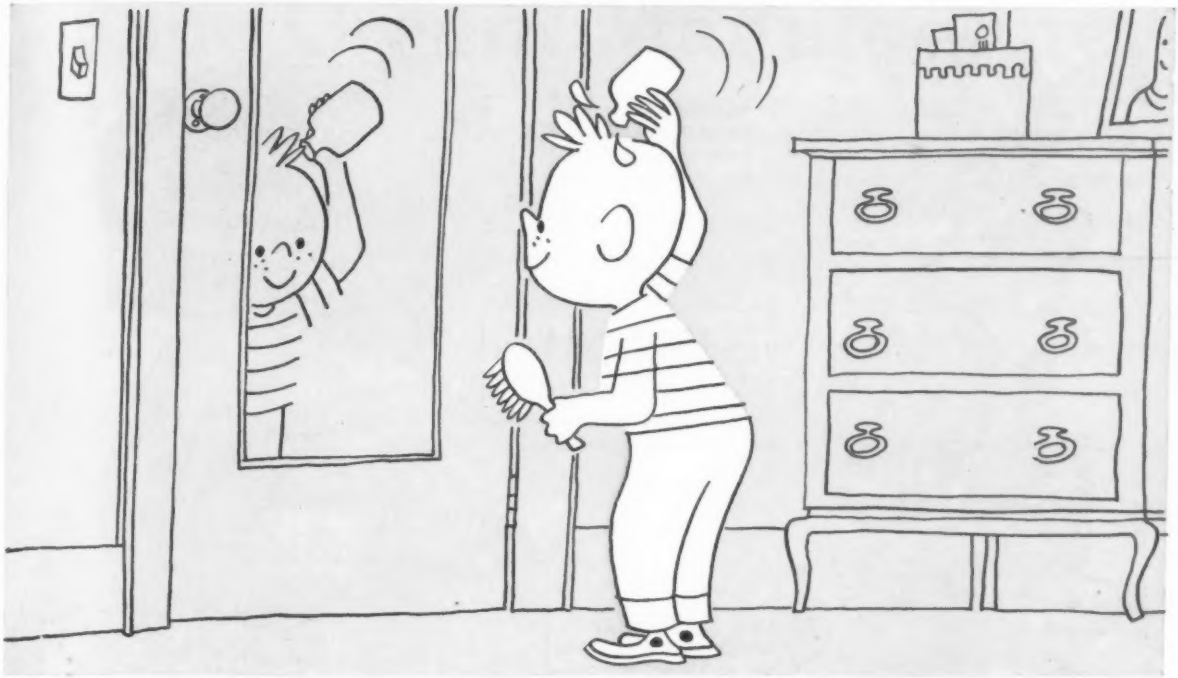
• The ownership of more than $36,000,000,000 in Savings Bonds by millions of Americans constitutes a reservoir of future purchasing power—an asset to industry and business as well as to the individuals who built it by their Bond-conscious thrift.

Why not team up with Mr. Peale and other leaders of industry in their efforts to help America reach its goal of wise public debt management and sound money? All you have to do is (1) show a *personal* interest in your Payroll Savings Plan. Get the figures on the percentage of employee participation and the amount of monthly savings by your employees. (2) Wire, phone or write to Savings Bond Division, U. S. Treasury Department, Washington, D. C. You'll get all the help you need to build up or install a Payroll Savings Plan that will reflect your company and its interest in America.

The United States Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

SOAP & SANITARY CHEMICALS

When a man's a lady's man



Norda helps

The fathers of many a little shaver owe quite a debt to Norda. Some of the most popular men's toiletries are made with Norda scents and odors.

The ladies, of course, have depended for years and years on cosmetic and beauty preparations made more alluring by Norda fragrances, shades, and colors. As you probably know, Norda research and achievements have made it possible for many leading makers of perfumes, colognes, lotions, lipsticks, powders—all cosmetics—to create some of their outstanding successes.

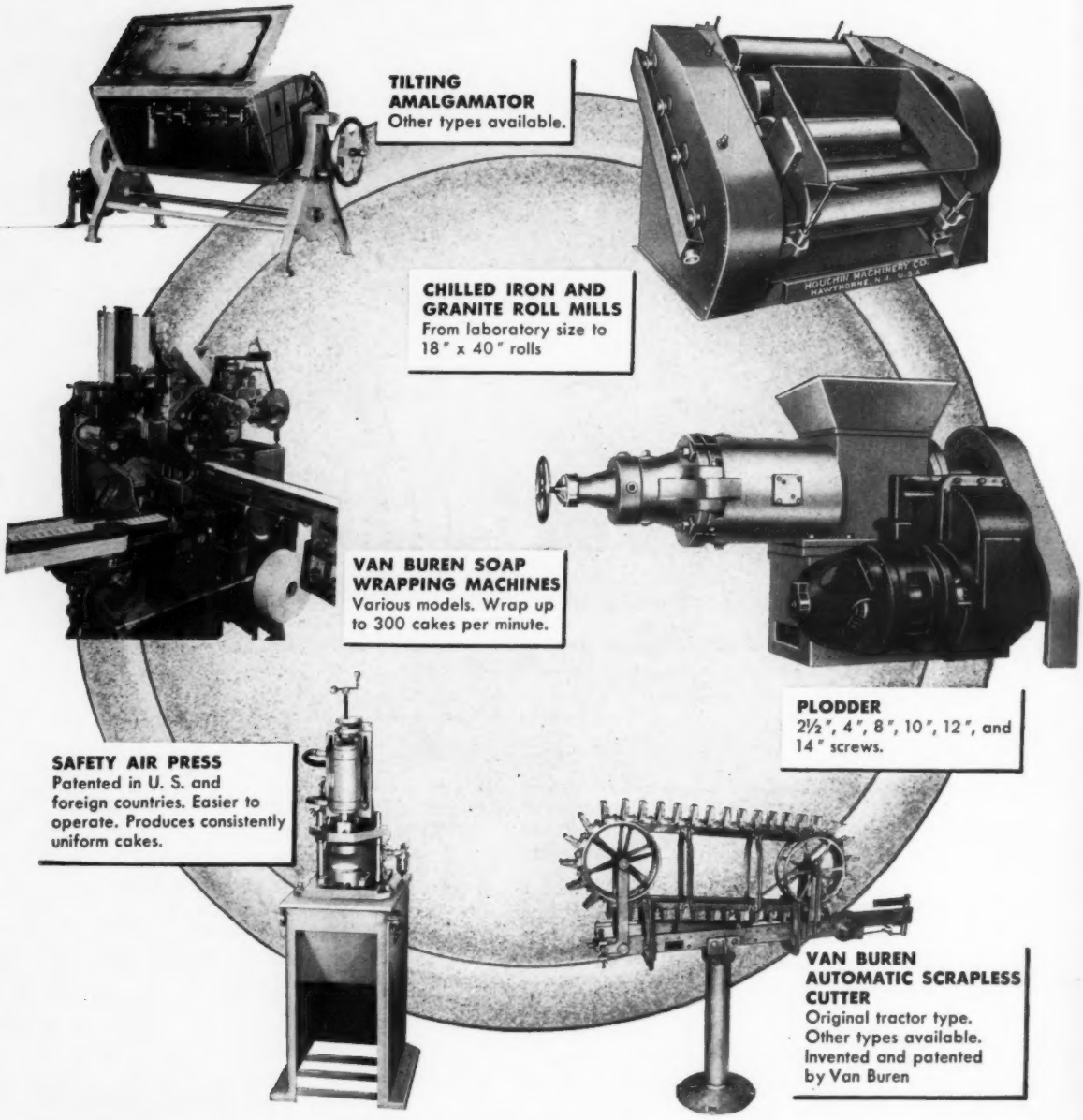
Norda makes good scents. Norda is known for that honest statement. *Norda was the first ever to talk sales scents with you.* So talk over your problems with Norda. Send for Norda samples and test them. Won't you do it today?

Norda

ESSENTIAL OIL & CHEMICAL COMPANY, INC.
601 West 26th Street, New York 1, N. Y.

CHICAGO • LOS ANGELES • SAN FRANCISCO • ST. PAUL • DALLAS • MONTREAL • TORONTO • HAVANA • LONDON • PARIS • GRASSE

6 *machines important in—* SOAP MAKING



TILTING AMALGAMATOR
Other types available.

CHILLED IRON AND GRANITE ROLL MILLS
From laboratory size to 18″ x 40″ rolls

VAN BUREN SOAP WRAPPING MACHINES
Various models. Wrap up to 300 cakes per minute.

PLODDER
2½″, 4″, 8″, 10″, 12″, and 14″ screws.

SAFETY AIR PRESS
Patented in U. S. and foreign countries. Easier to operate. Produces consistently uniform cakes.

VAN BUREN AUTOMATIC SCRAPLESS CUTTER
Original tractor type. Other types available. Invented and patented by Van Buren

Houchin soap making machines include every machine required for modern soap manufacture. Available individually or in complete production ranges.

HOUCHIN MACHINERY CO., INC.

Sixth & Van Winkle Avenues — **Hawthorne, New Jersey, U.S.A.**

Manufacturers of Soap Making Machinery Since 1840

Shoe Cream Manufacture...

Polish luster depends upon correct choice of waxes, esters, solvents and paraffins. Solvent evaporation speed, pouring temperature, container size and climatic conditions in pouring room also are important.

SURFACE luster produced by a shoe polish depends, of course, upon proper choice of suitable waxes and upon the correct ratio of ester waxes, ozokerite, and paraffin to solvent or solvent mixture. But equally important, possibly decisive, factors are solvent evaporation speed, pouring temperature, climatic conditions in the pouring room, and, finally, size and proportions of the containers. Producers of raw materials supply recipes for the manufacture of shoe polishes, but these should be considered merely as a starting point. Generally these formulas are based on experiments in laboratory quantities and are hard to apply to actual production.

The production man is far more concerned with the physical properties of the waxes than with their chemistry. He ascertains the proper composition of the wax batch by preparatory experiments. Manufacturing methods vary. Most large producers pour the preheated solvent into the still hot wax charge, then heat the liquid shoe cream to a suitable temperature, convey it to the filling machines and pour the product into containers. Cooling takes place on a moving belt which runs though a cooling tunnel. The cans are then closed with lids. A uniformly satisfactory surface luster does not result from this method, for any one or a combination of the reasons cited above.

This procedure is reversed in small or medium size plants, where surface gloss is greatly valued in addition to polishing and preserving properties. Here the hot wax mixture is added to the preheated solvent. A number of small kettles are filled with an accurately measured amount of solvent which is then preheated to 38° - 40° C. Each kettle is then placed on scales and a previously calculated quantity of wax is added at 90° - 95°C in a thin stream and in small amounts. This operation must be accompanied by constant stirring. If it were performed rapidly uneven heating of the solvent would lead to grainy wax precipitation. As soon as the proper amount of wax has been added to the solvent the kettle is cooled under constant stirring. Incrustations forming on the inside wall of the kettle must be constantly removed and stirred back into the batch. The cream solidifies and becomes almost immobile at about 38 - 40°C, depending upon the wax composition. Cooling is then discontinued and the contents of the kettle are broken up by stirrers, whereupon they assume a paste like consistency.

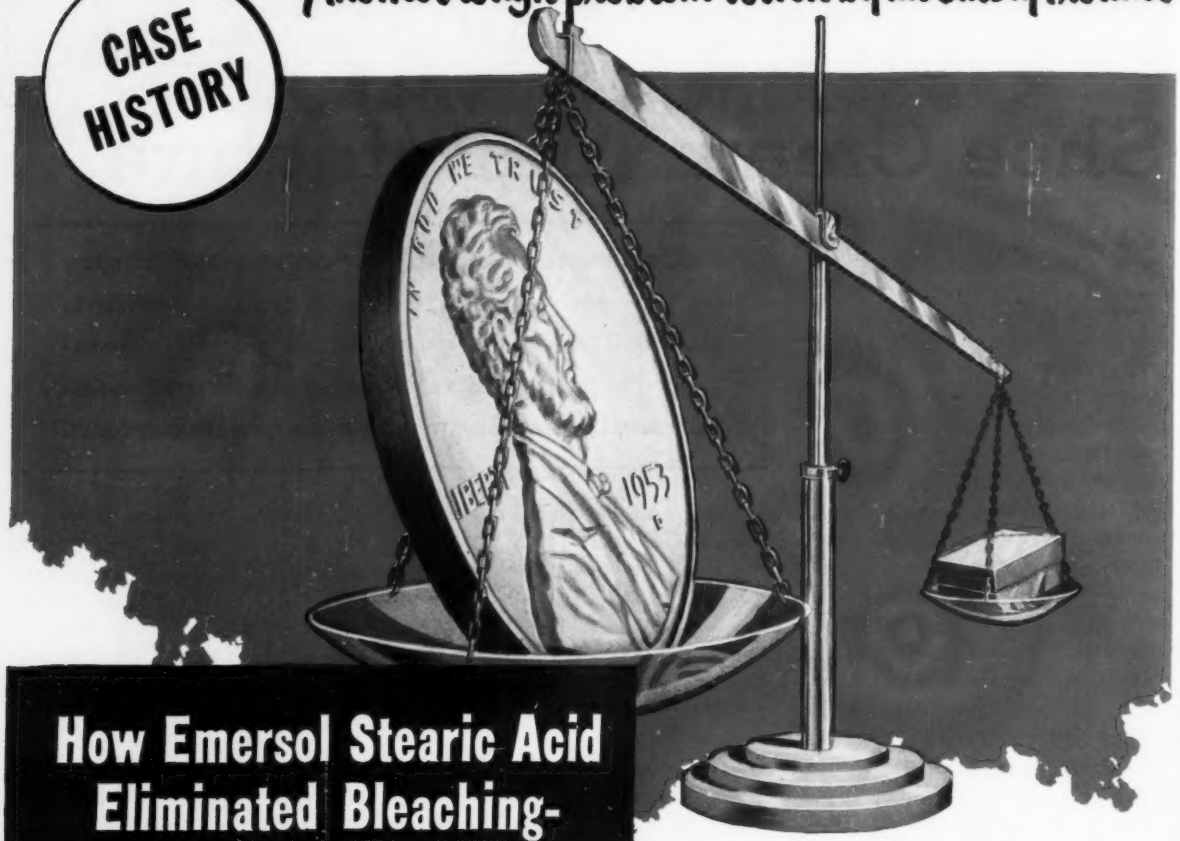
The kettle is then put aside to permit the cream to age. The author has seen some foreign firms leave their shoe creams to age for as long as two weeks before pouring. Then the cone-shaped kettles, which have a capacity of 120 to 130 liters and contain approximately 100 kilos of shoe cream are heated in a water bath under constant stirring to 62 to 65°C. The cream should run freely from the shaft of the stirrer and should show no trace of graininess. Otherwise the temperature has to be raised by a few more degrees while vigorous stirring is continued. Cooling is then effected as described in the manufacturing process and the mass is allowed to set. During setting the temperature is raised two to three degrees by the heat of crystallization. The set batch is "broken" and heated to pouring temperature which usually is three to four degrees above the one registered during setting. The product is then poured and cooled either by ventilator or cooling tunnel.

This procedure, though a little more costly in time, labor, steam, and solvent evaporation, offers the following advantages: first rate surface lustre without cloudiness; homogenous consistency of the paste; no subsequent crystallization or separation of solvents with its attendant troubles.

In the manufacture of black shoe cream, attainment of a deep black lustre without clouding frequently offers problems. Fogging and a grey tone are often encountered. Fogging is commonly blamed on faulty pouring temperature, humidity, etc., while the nigrosin base is held responsible for the grey tone. The following procedure is suggested to avoid these troubles: 1.5 kilo of "Olesol Black S" (product of the I.G. before World War II) is added to each 100 kilos of wax batch, and four to 4.5 kilos of fine light carbon

CASE HISTORY

Another tough problem solved by an Emery Product



How Emersol Stearic Acid Eliminated Bleaching-Saved ½¢ a Pound

By using Emersol 132 Lily Stearic Acid in place of an ordinary triple-pressed type, this manufacturer of ***esters*** was able to attain the desired color of his product ***without bleaching*** and without spending extra money, because Emersol Stearic Acids cost no more than ordinary grades.

In this actual case, the exceptional ***color-stability*** of Emersol 132 resisted the darkening that normally occurred during high-temperature esterification. Not only was the cost of bleaching eliminated (labor and materials), but the yield of finished product increased by the amount normally trapped in the discarded filter cake.

The outstanding stability of Emersol Stearic Acids can mean as much to you. Even where color is not of primary importance, their superior resistance to rancidity and to oxidation are extra benefits that make any product ***more salable.*** Since they cost no more than ordinary grades, it will ***pay you*** to use Emersol Stearic Acids—available in all grades to suit your specific need. Next time...everytime...buy Emersol Stearic Acids.

IF YOU USE A DOUBLE PRESSED GRADE...

Here's one of many reasons why Emersol 120 Standard Stearic Acid is preferred over competitive double-pressed grades. These colors of *glyceryl monostearates* clearly show the value of the outstanding *color stability* of Emersol 120. The monostearates were esterified for 5 hours at 250° C, under a CO_2 blanket, with no bleaching or refining.

Glyceryl Monostearate made from	*Lovibond Color (5¼" Cell)*
Emersol 120 Standard Stearic	6Y/2.7R
Competitive Double Pressed "A"	9Y/4R
Competitive Double Pressed "B"	28Y/8.5R

Write Dept. S-2 for full information on all Emersol Stearic Acids.

Emery

Fatty Acids & Derivatives
Plastolein Plasticizers
Twitchell Oils, Emulsifiers

Emery Industries, Inc., Carew Tower, Cincinnati 2, Ohio

Export: 5035 RCA Bldg., New York 20, New York
New York • Philadelphia • Lowell, Mass. • Chicago • San Francisco
Schibley & Ossmann, Inc., Cleveland • Ecclestone Chemical Co., Detroit

Warehouse stocks also in St. Louis, Buffalo, Baltimore and Los Angeles

black (of American manufacture) are used for every 100 kilos of shoe cream. The carbon black is added to the preheated solvent, a few minutes allowed for wetting, and the mixture then stirred and added to the hot wax as above.

Although these methods have proved themselves in long practice, it should be remembered that the decisive factor is the experience of the production man, his knowledge of the raw materials, his choice of pouring temperature, of containers, cooling speed, etc. He will pay special attention to the surface lustre as a matter of course, just as he will not disclose his manufacturing process. H. Hollander, Seifen - Oele - Fette - Wachse, 1953, No. 26, p. 699.

Phosphates as Syndet Builders

CONDENSED, complex anhydrous phosphates, derived from orthophosphates by dehydration, are increasingly used as builders for synthetic detergents. Basic types are pyrophosphate ($Na_4P_2O_7$); tripolyphosphate ($Na_5P_3O_{10}$); and hexametaphosphate ($Na_6P_6O_{18}$). Properties as builders are based on the following essential functions, exhibited by the different phosphates in varying degrees:

1. Ability to form complexes with the ions of earth alkalies (cause of water hardness) and of heavy metal salts; water is softened, carbonates and lime soaps are dissolved, and such substances as iron are rendered harmless.

2. Ability to suspend, disperse, peptize, and emulsify pigments, oils, etc.; soil is thus finely dispersed and resorption is prevented in many instances.

3. Ability to regulate the pH of the liquid, which is moved into the neutral to sour range by the presence of metaphosphate, weakly alkalized by the presence of tripolyphosphate, and strongly alkalized by the presence of tetrasodiumpyrophosphate.

Efficiency in the laundering process depends upon the degree to which each of these three functional properties is present. Additional influences are concentration, temperature and pH. Hydrolytic fissionability and hygroscopicity of the phosphates are also important factors.

Condensed phosphates are found to be superior to inorganic salts (electrolytes) and to orthophosphates as builders. There is an optimum ratio of phosphate quantity to concentration of active detergent.

Washing powder of secondary alkyl sulfates and dodecylbenzenesulfonates is increased more effectively by the presence of a combination of phosphates than by the presence of an individual phosphate. Sodium hexametaphosphate, which is a buffered form of sodium hexametaphosphate, is found more effective than a combination of tripoly-pyrophosphate. For stabilization of soap in hard water, a combination of potassium metaphosphate and pyrophosphate is recommended.

An experiment in which sodium hexametaphosphate was used in place of the tripoly/pyro-combination in a hot-sprayed synthetic detergent, showed positive results regarding detergency, soil carrying power, and lumping properties.

Foaming power of alkylbenzenesulfonate is more favorably influenced by metaphosphate than by pyrophosphate.

Effect of condensed phosphates on persalts is not yet fully investigated; generally they inhibit stabilization of percompounds.

Fiber incrustations liable to occur after repeated laundering with syndets in hard water, can be prevented completely by metaphosphates, very well by sodium hexametaphosphate, somewhat by tripolyphosphates, but not at all by pyrophosphates.

Surface activity of wetting and washing agents is increased by the presence of polymeric phosphates.

Properties looked for by the detergent industry in a phosphate builder differ from the requirements of the textile and commercial laundering industries.

The above conclusions on the role of condensed phosphates as builders in syndets are amply documented and illustrated by tables and graphs in an article by Dr. H. Stuepel, *Seifen-Oele-Fette-Wachse*, 1953, Nos. 21 through 24, p. 537-621.

— * —

Lemon Juice In Soap

All claims put forward for so-called lemon-juice soap which are based on the properties of free citric acid or abscorbic acid present in lemon juice must be considered false. Lemon juice which contains four to 8.5 percent citric acid must be considered an incompatible additive to soap. An excess of alkaline soap results in the formation of sodium citrate; and excess of citric acid leads to separation of the fatty acids and destruction of the soap.

Addition of citric acid to synthetic detergents, on the other hand, is feasible, because these products are salts of strong acids or non-dissociated compounds. Examination by the very sensitive pentabromacetone reaction at a pH of 8.7 showed only traces of sodium citrate in a so-called "lemon-juice soap." Obviously claims of astringent and bleaching properties based on the presence of free citric acid cannot be substantiated for such a product.

Another active ingredient of lemon juice is vitamin C or ascorbic

BIG PROFIT OPPORTUNITY IN LIQUID DETERGENTS

STEPAN Complete Line of Liquid Detergent Bases Helps Soapers Cash-In

From heavy-duty floor cleaners to bubble bath specialties . . . from textile scouring compounds to milady's creme shampoos, there are Stepan liquid detergent bases and finished formulations available to help you develop your own product.

Included in the Stepan line of liquid detergent base materials are the new higher fatty alcohols and fatty alcohol sulfates important for superior detergency and mildness to the skin in such products as liquid dishwashing detergents, heavy-duty household detergents and other detergents in either liquid, solid, or flake form.

The completeness of the Stepan line of base materials makes it possible for you to select just exactly the correct ingredients for blending to your use and price requirements.

Why not let Stepan materials, facilities, and experience help you to capitalize on the big and growing liquid detergent market?

20.2% of the market in four years is the record for a liquid dishwashing detergent in one major city. It now outsells all other dishwashing products in that market. Synthetic detergents as a whole have captured better than 50% of the market, nationally. Stepan Chemical Company has a complete line of liquid detergent bases and finished formulations to help soapers profit from this growing market. Many of these base materials are also advantageous for use in solid, flake, or paste form detergents.

Liquid Alkyl Aryl Sulfonates

The Stepan line includes a variety of liquid alkyl aryl sulfonates offering economical sources of active ingredients and tailored to meet various price and end use requirements. Among these products and of special interest are DS-60 and DS-35 de-salted sodium alkyl aryl sulfonates. In addition to their uses as a liquid dishwashing detergent base, these products are ideal as bases for scrub soaps, dairy cleaning compounds, or any other cleaning compound which requires the combination of economy, superior detergency, and superior wetting action.

Non-Ionic Detergents and Foam Stabilizers

Stepan LDA, an alkylolamide, provides exceptional foam stability and is highly recommended for use in alkyl aryl sulfonate and fatty alcohol sulfate formulations where high foam stability is desired.

Amides—Stepan can also produce special amide type non-ionics to your own specifications. Our large production capacity may well effect important savings to you on products of this type.

Sulfated Alcohols

Lauryl Sulfates—An extremely wide range of sodium, ammonium, potassium, and triethanolamine lauryl sulfates are available for detergent and other uses. These are obtainable in paste, liquid, or powder forms and are unmatched for purity and uniformity.

Higher fatty alcohol sulfates—These new products in the Stepan line offer excellent detergency and the additional advantage of low de-fatting to the skin. They are ideal for use in shampoos, heavy-duty household detergents, and other detergents in liquid or solid form.

Savings Through Stepan Blending Service

The completeness of the Stepan line can also make possible consolidated raw material buying. This, in combination with Stepan's extensive blending facilities, can effect important savings for you. Carload total of less than carload ingredients, where suitable, can be blended at small additional cost and carload price savings effected on the individual items.

Laboratory Assistance

The Stepan Chemical Company has had over twenty years experience in the field of synthetic detergents. This experience and the new Stepan laboratory facilities are available to help you in developing and producing your detergent product.

Write for Free information and Samples...

THE STEPAN CHEMICAL CO.

20 No. Wacker Drive
Chicago 6, Illinois
Telephone: CEntral 6-5511

acid, which is present at the rate of 40 to 70 mg percent. An alkaline medium destroys vitamin C, and a soap containing ascorbic acid is therefore a contradiction in itself. E. Benk, *Seifen-Oele-Fette-Wachse*, No. 16, 1953, page 426.

Soap Assn.

(*From Page 37*)

by C. L. Weirich, C. B. Dolge Co., Westport, Conn., and chairman of the Specialty Soap Division, heard R. F. Huntley of Cowles Chemical Co., Cleveland declare that "whether it be salesmen or uranium, you must know what you are looking for before you can find it." Mr. Huntley's talk begins on page 41.

"The hiring of qualified personnel is the most important part of management," E. B. Osborn of Economics Laboratory, New York, pointed out in his paper, "Facts—Not Fancies in Selecting Personnel." To hire the good man, as distinct from the man who looks good, "involves a gathering and correlation of sufficient pertinent facts so as to get an objective overall analysis of the person" under consideration, Mr. Osborn explained. "The history and past performance of the person we are considering is the thing," he said. His company also has propective employees interviewed by several persons. In addition to verifying information developed in interviews, references are checked by face to face interviews with persons given as references.

The use of newer testing devices, "projective tests" for rating prospective employes was outlined in a talk by King Whitney, executive director of the Personnel Laboratory, New York, whose subject was "Can Common-Sense Pick Salesmen?"

Packaging Panel

THREE panel discussions, presided over by A. B. Hersberger of Atlantic Refining Co., Philadelphia, were featured at the general session the morning of Jan. 28. A new filling machine which not only has a speed potential of up to 300 packages a minute but greatly reduces weight error by using a new method of automatic weight control applied to volumetric measuring was described by the panel's first speaker, Stanley Ross of Pneumatic Scale Corp., N. Quincy, Mass., who spoke on "What's New in the Mechanics of Packaging."

"The way to realization of the 'ideal' package is only through a long range, continuing program utilizing all the data that modern research and industrial technique can provide," Donald Deskey of the New York consulting firm bearing his name, pointed out in his paper "Packaging Design—The Responsibility of the Industrial Designer."

The control of quality in the manufacturing of folding paper cartons by statistical methods was reported on by W. E. Sooy of Gardner Board & Carton Co., Middletown, O. Production control charts used to illustrate methods employed in determining the quality level were shown in slides by Mr. Sooy.

A panel on the outlook for basic raw materials featured George L. Prichard of the Bureau of Raw Materials, who said that domestic production of tallow and grease is expected to continue at about the record levels of the last few years. U. S. production of all fats and oils is expected to continue at high levels and coconut and palm oils should continue to be available in such quantities as may be needed for soap making, Mr. Prichard said.

The use of fats in animal feeds, the "only one new outlet for tallow and grease which seems to have any major importance—any real possibility of consuming sizable quantities of these products," was discussed by Dr. J. E. Magoffin of Eastman Chemical Products, Inc., New York. "There is now no question but that tallows and greases can be effectively, efficiently and economically used in animal and poultry feeds," Mr. Magoffin stated. With an average use of two percent fat in the 40 million tons of formulated animal and poultry feeds consumed in the U. S. in 1952, approximately 800,000 tons of tallow and grease would be consumed. The estimated yearly surplus (production less demand) for 1953 was 810 million pounds, so that if only 50 percent of the formulated feeds are fortified with two percent fat, the surplus is readily consumed without any recourse to export. It is quite feasible to use as much as four percent fat in animal feeds, Mr. Magoffin said.

In a review of "The Uses of Fats in Synthetic Detergents," John W. McCutcheon, New York consultant, pointed out that there was a general tendency on the part of manufacturers to lean toward fat produced materials due to familiarity with their chemical nature.

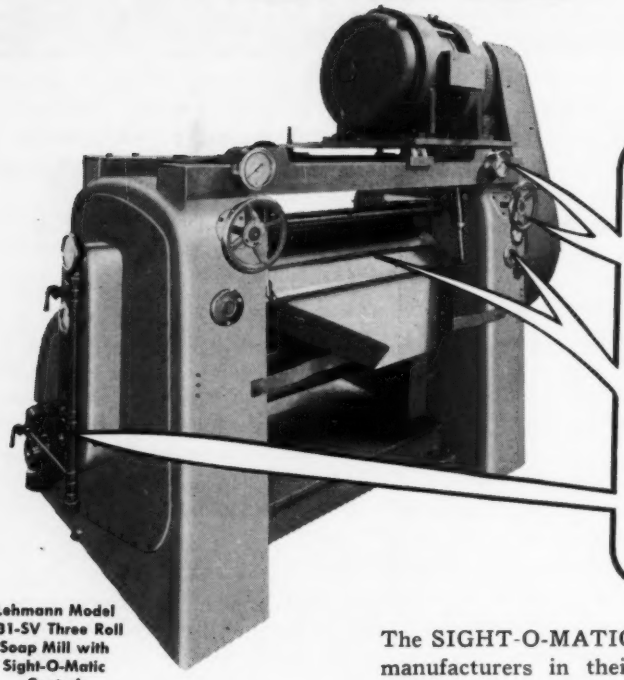
The washing machine manufacturer's views of an "ideal" detergent were outlined by R. E. Christie of General Electric Co., New York, who said such a product should be a.) non-foaming, b.) superior as a deflocculator and suspender, as well as a good cleaner; c.) must have a pleasant odor; d.) relatively inexpensive; e.) well distributed nationally; f.) must not attack dish patterns, and if at all possible, should polish copper bottoms on pots and pans; and g.) be a liquid. Mr. Christie's was the first paper of a panel on developments in soap and detergent use.

A brief review of the history and present and future status of liquid detergents was presented by Daniel H. Terry, director of research for Bon Ami Co., New York. The increased consumption of liquid synthetic detergents (from 712,000 pounds in 1948 to 94,665,000 pounds in 1953 of which approximately 95 percent is for household packaged products) is attributable largely to their growing popularity for dishwashing and hand laundering of woolens and lingerie, Mr. Terry stated.

Desirable properties of detergents for automatic washers, according to E. O. Morton, of Westinghouse Electric Corp., Mansfield,

The new SIGHT-O-MATIC* SOAP MILL

saves time, labor, money in making adjustments



Lehmann Model 631-SV Three Roll Soap Mill with Sight-O-Matic Control

QUICK, ACCURATE MILL SETTING BY SIGHT-O-MATIC CONTROL:

1. *For the Rolls*—Gauge actuated by handwheel for quick, accurate adjustment. Optimum pressure levels for feed and take-off rolls for best milling and dispersion are obtained with quickness and accuracy.
2. *For the Take-Off Knife*—Turn of a handle pneumatically opens or sets knife for operation. Accurate setting retained throughout batch run regardless of blade wear.
3. *For Cooling Water*—Cooling water regulated by dial thermometers to maintain proper temperature for material processed—resulting in production savings.

The SIGHT-O-MATIC SOAP MILL is a powerful ally for soap manufacturers in their struggle to maintain adequate profits against keener competition. Briefly, Sight-O-Matic control minimizes the human element in soap mill operation.

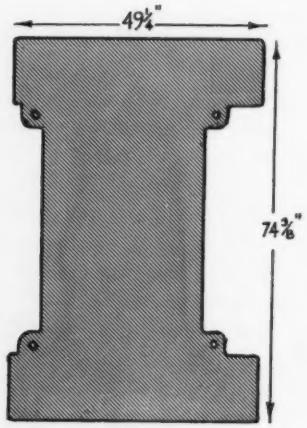
A relatively unskilled operator can obtain correct roll pressures quickly by turning the handwheel (one at each end of slow and fast rolls) until proper pressure is indicated on gauge at that point. These easy-to-read Sight-O-Matic pressure gauges save valuable production time and labor in setting the mill for optimum performance.

Pneumatic discharge control provides means of setting and maintaining knife pressure for most efficient take-off. Dial indicator in air line permits predetermined settings. Positive regulation prevents damage to both knife and roll and assures complete film removal.

Roll temperatures, important to optimum operational efficiency, are controlled with assistance of dial thermometers at intake manifold and all roll water outlets.

These and other refinements in the 631-SV and 632-SV Three Roll Mills offer toilet soap and soap flake manufacturers equipment that can have substantial effect in lowering production costs.

*Reg. U. S. Pat. Off.



LESS FLOOR SPACE

Motor mounted on top of mill instead of floor, saves floor space

Send for further information regarding LEHMANN SIGHT-O-MATIC SOAP MILLS

LEHMANN®

J. M. LEHMANN COMPANY, Inc.

MAIN OFFICE AND FACTORY: 548 NEW YORK AVE., LYNDHURST, N. J.

O., include: good detergency in hot or warm and hard or soft water; ready solubility; controlled sudsing; free rinsing, lack of corrosiveness to aluminum, vitreous enamel and effective as an all purpose product for newer fabrics or heavily soiled work clothes.

John Bodman, formerly research director of Lever Brothers Co., New York, prefaced his remarks on the composition of synthetic detergents by saying that so-called sudless detergents were not

(*Concluded on Page* 97)

Valid Patent

(*From Page* 40)

producing the final effect, sometimes simultaneously, sometimes successively. The result comes from the combined effect of the several parts, not simply from the separate action of each and is, therefore patentable."

References

Application of Kunz, 181 Fed. 2d 239
35 U.S.C.A. 13, 101
Galland-Henning Mfg. Co. v. Logemann Bros. Co., 142 Fed. 2d 700
Harley C. Loney Co. v. Ravenscroft, 162 Fed. 2d 703
Keuffel & Esser Co. v. Pickett & Eckel, Inc., 85 F.S. 855
Cuneo Corp. v. Automatic Devices Corp., 314 U.S. 84
Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp., 340 U.S. 147; 179 Fed. 2d 636: 78 F.S. 388
Atlantic Works v. Brady, 107 U.S. 192
Dunbar v. Meyers, 94 U.S. 187
In re Jones, 58 Fed. 2d 461
Reckendorfer v. Faber, 84 U.S. 348

Hiring . . .

(*From Page* 43)

have a conference at least once a year for each of our departments. With two of the departments this is an annual affair and all the men are brought in at one time. With another department, sales clinics are held in key cities with six to eight men from the nearby territories participating. These conferences or clinics are usually of 3 or 4 days duration.

Our method of compensating salesmen is relatively simple but in our case effective. Besides the usual allowable expenses when away from their base city, we supply them with a rented car, for which we furnish everything but parking. The man is permitted to drive the car for reasonable personal use. He is paid a guaranteed drawing account plus commissions earned in excess of this minimum. In an established territory when commissions earned fail to meet the draw, the deficiency is charged against future excess commissions and thereafter the salesman does not receive commissions earned in excess of his draw until the deficiency is repaid.

Commission rates are not figured as a percentage of sales but are set at a fixed amount per unit (usually we use hundredweight) and the amount varies between products depending on the profitability of each product. Each man is given a statement each month showing deliveries and commissions by products. This automatically puts more incentive into selling the products with greatest profit. This simple method makes it possible for the salesman to keep track of his earnings as he goes along. Product profitability of course does vary but having once established a commission rate on a product we try not to change it.

In addition we have had a profit sharing plan in effect for a number of years which is deferred compensation to provide security for the salesman after his retirement.

Now as to the results—while we are by no means batting one thousand percent in the selection, training and compensating of salesmen, we have greatly increased our batting average over the past 15 years. We realize that there is still a considerable amount of guesswork in selecting salesmen and all we are trying to do is to minimize the guesswork as much as is humanly possible. As for more specific results, you may be interested in knowing that in one of our departments, some 65% of the sales force has been with us for five or more years, several for 15 to 25 years. In another department which has only been in existence for 8 years, 60% have been with us for 5 years or more. In a third department, some 70% are 5-year men or longer and for the fourth, the figure is something like 85%. It is not our intention to coast on our past experience in the technique of selecting salesmen, but we plan even more study in this important field in 1954, with a follow-up training course for our sales managers and assistants which we hope will make them more proficient in the interview.

Know what you are looking for in the first place, develop the mean for selecting good men and you are well on your way to building a strong sales force.

Germicidal . . .

(*From Page* 45)

of the marketing program.

3. Representatives of jobbers and distributors should be urged to attend food service instruction classes of local health departments, or organize classes of their own and request such instruction be given, so that the same terms and statements can be made by the salesman as are made by the official sanitarian.

The slogan of the Baltimore City Health Department is, "Learn to Do Your Part in the Prevention of Disease." This slogan could well be repeated by the manufacturers of sanitizing chemicals in instructing sales personnel and users of the many effective products of that industry.

References

1. Kaplan, Emanuel. A Review of Chemicals in Food, *Quarterly Bulletin*, Association of Food and Drug Officials of the United States. Vol. XVII, No. 3, July, 1953, pp. 102-110.
2. Korff, Ferdinand A. Illnesses Attributed to Food. *Modern Sanitation*, June, 1952. Vol. 4, No. 6, pp. 25-26.
3. Seastone, C. V., and Erickson, I. C. A comparison of solid and liquid soap as vehicles for G-11 (Hexachlorophene) in the surgical wash. *Surgery*. Vol. 25, February, 1949, pp. 290-296.

PRODUCTION Clinic

By E. G. Thomssen, Ph.D.

WRITING, whether in the form of letters, reports, or papers, is ever felt as a troublesome and difficult task by the research or production man in industry. How to put on paper, clearly and concisely, what he wants to say, is to him a perplexing problem. Yet the technical man's ability to convey to the business mind the nature and import of his experimental or other findings determines the fate of such findings at the hands of management.

A chemist in just such a predicament discussed it with me recently. He had completed an important research project and found his results full of promising potentialities. Much of his time and the company's resources had gone into the work. He was most anxious to impress management with the importance of his findings. He had written several drafts of his report. None satisfied him, because none conveyed the information properly. We had a long talk concerning the elements that go to make up a good scientific report.

Grammarians who have specialized in syntax have written many volumes on what comprises good writing in general. Good scientific writing is not covered as fully. Certain requirements, however, apply to both: avoid use of unfamiliar or technical terms; seek conciseness by the use of short words and short sentences; eliminate too many commas and too many adjectives; delete space consuming, meaningless circumlocutions; strive for clarity and easy understanding.

Scientific writing makes difficult reading for the man without technical education. To further perplex him by the use of unfamiliar technical terms is adding to his confusion and failure to understand a written article. Specialists and technical men generally tend to overlook this point in their letters and reports. They also use many abbreviations which are meaningless to the ordinary person. Some chemists and other technicians try to impress their readers by the use of terms and expressions that even persons in the same line of work find it difficult to interpret lucidly. Such methods detract greatly from good technical writing.

DR. THOMSSEN

Conciseness, achieved by the use of short words and short sentences, can be mastered by practice. It is far more difficult to present a scientific paper simply and tersely, than to do it verbosely and circuitously. It is good practice to make an outline of the subject matter first, then make a preliminary draft. Correct this draft; eliminate long words, conjunctions and unnecessary phrases. Try to use direct statements in the present tense. A point made in five or six short, familiar words is far more effective than one made in three or four times that number. It reads more easily and is retained longer.

Anderson, writing on this subject in *"The Minnesota Chemist"* comments on the use of commas. I quote him with deletions: "Study—punctuation for—simpler construction. Beware of all sentences containing more than three commas. Prefer sentences with only one subordinate clause—. Learn to use semicolons,—. Do not put groups of related ideas in long dangling sentences. You will be surprised how readily you can simplify your style by paying attention to these simple rules for reducing the average length of sentences." These warnings on the use of commas are very helpful.

Coupled with the use of too many commas is the excessive use of adjectives. In many cases this complicates the clarity of a statement. The length of the sentence is increased without adding anything to its meaning. It is good practice to remove all unnecessary adjectives when editing a preliminary draft. Sometimes this will shorten a paper considerably while making it more intelligible.

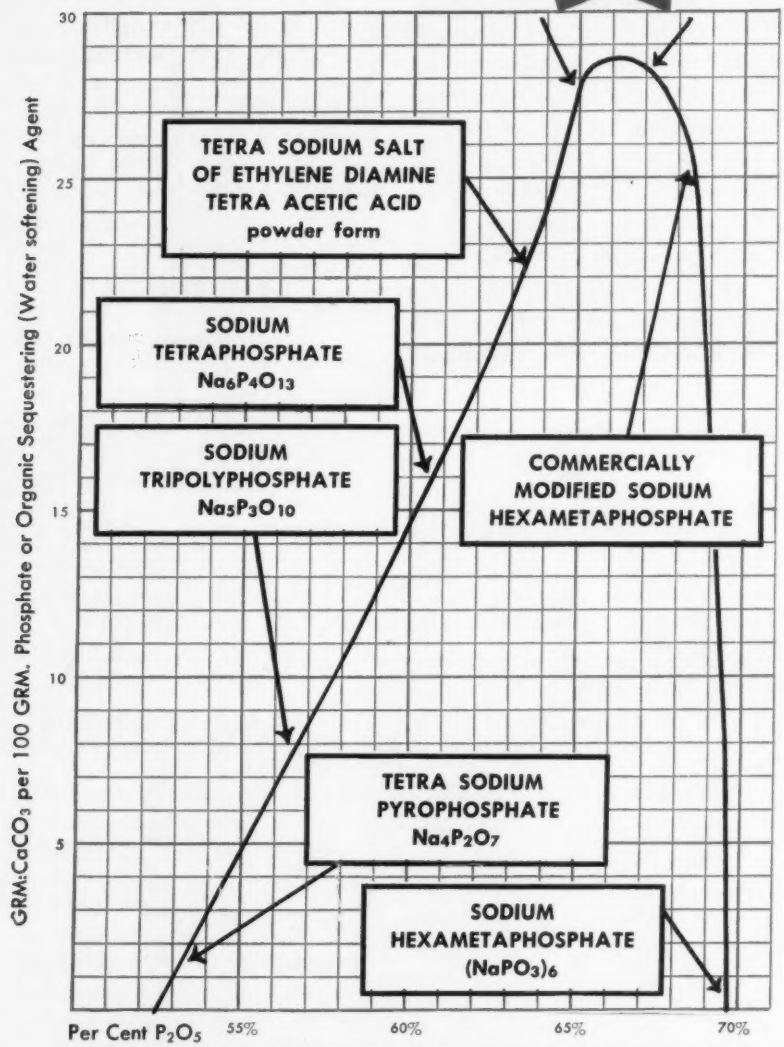
Use of circumlocutions is a very common defect. "Owing to the fact that," "in accordance with," "with the result that," "on the basis of" and many others belong in this group. Keep a list of those that crop up in your writings, then stop using them. Your statements will be more effective. Circumlocutions are a lot of empty expressions that becloud points to be stressed.

Ease of understanding and clarity are the most desirable qualities. They are attained by the choice of simple words. Elementary word pictures may help to illustrate a difficult point. Association of a point to be stressed with a commonplace illustration aids greatly. Concrete expressions are preferable to abstract terms. If abbreviations are used they should be carefully defined and a glossary provided if they are used frequently. Abbreviations have become so numerous in scientific fields and others that it becomes difficult to interpret them without a dictionary, which may not always be available.

For good scientific writing shun unfamiliar technical terms; be concise; write simply; use simple words; eliminate commas, adjec-

HY-PHOS*

the amazing NEW sodium glassy phosphate HY-PHOS *for*



Calcium sequestering (water softening) properties of complex phosphates using soap as an indicator.

Water treatments
Soaps and detergents
Cleaning compounds
Textile processing
Dairy cleaners
Boiler water compounds
Preventing corrosion
Treating drilling muds
Decontaminating radio-active surfaces

HY-PHOS . . . *Highest sequestering (water softening) power of all known chemicals.*

HY-PHOS . . . *Highest dispersing power, wetting enhancement power, corrosion resistance power, nearest to neutral, . . . of all glassy phosphates.*

HY-PHOS . . . *Costs no more than other glassy phosphates.*

5 FORMS . . . *plates, pellets, regular grind, granular, fines.*

Write...

for sample (state grind) and technical booklet describing properties, formulas and uses.

*U.S. Patent No. 2,574,047

*Trade Mark Registered.

I. P. Thomas & Son Co.

721 Market St. Camden 2, N. J.

tives and circumlocutions; above all, strive for clarity and easy understanding. Do not attempt to be flowery or poetical, as this is out of place in scientific writings. It is the straightforward, terse, clear type of writing which attracts readers in this field. If possible, have somebody else read your writing and edit it for you.

Tank Heater

BROWN Fintube Co., Elyria, O., offers an improved tank heater. Instead of installing the heating coils in the bottom of a tank where sediment is apt to collect, the firm mounts this heater in a vertical position on legs 12 in. above the bottom of the tank. Low cost, less loss of heat, and prevention of deposits of sediment are among the advantages claimed.

Sturdy Dial Thermometer

A DIAL thermometer built to take severe handling without loss of sensitivity is made by Rochester Manufacturing Co., Inc., Rochester, N. Y. A simple screw adjustment permits rapid, easy recalibration of the instrument if it gets out of order due to dropping it or by other mishandling. It is made of welded, stainless steel and guaranteed to be durable, sensitive and pressure tight.

T. E. A. Anniversary

CARBIDE & Carbon Chemicals Co., New York, advertises that it has been producing triethanolamine (T.E.A.) for more than a quarter of a century. Those of us who had to make stable emulsions before T.E.A. was introduced remember well the many heartaches we had in producing a satisfactory product. T.E.A. was a godsend to us. Its introduction has opened the way for the use of emulsions in many fields. Polishes, liquid floor waxes, oil emulsions, detergents and insecticides are among the products made possible by triethanolamine (T.E.A.). It also blazed the way toward the production of many other emulsifying agents. We have come a long way in these past 25 years in this field of chemicals.

Inert Filler

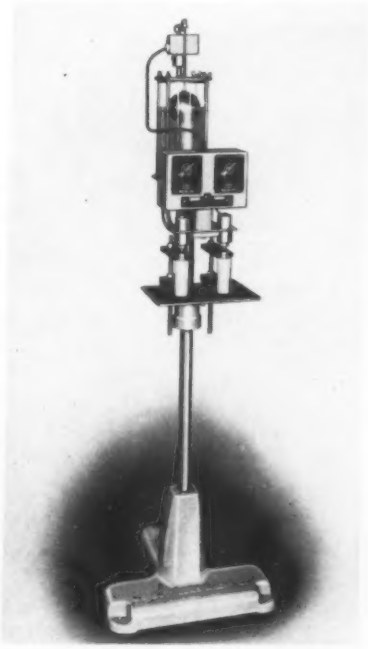
AN amorphous, diatomaceous silica that is inert, finely ground and light in weight is known as Aquafil. The Aquafil Co., Cedar Rapids, Iowa, sells it. It can be used as a diluent for insecticides, as a filling agent and for bulking purposes. The cost of the product is low.

New Filling Unit

A new kind of semi-automatic machine for filling any type of liquid in any size or type container was announced recently by U. S. Bottler's Machinery Co., Chicago. The new "Multi-U-Meter" filler features a container handler mechanism that is designed for efficient filling of plastic and odd-shaped containers that are awkward to fill on other types of machines due to lack of rigidity of the containers.

The "Multi-U-Meter" is available in two-tube and four-tube models. The two-tube model has the fastest production on two to eight ounce containers, which sizes fill at a rate of 10 to 15 containers per minute. The four-tube model is desirable for increased production on slow flow rate liquids and on large containers.

Nozzle changes for different flow rate liquids are made instantly by hand.



Pipe Bending Machine

IN plants where piping installations are made to any extent, a pipe bending machine results in reduction of leaks, economy in labor, and neater workmanship. Wallace Supplies Mfg. Co., Chicago, Ill., issues a booklet regarding a bending machine with which it is possible to produce at least 60 bends of 1¼" pipe an hour with one operator.

Truck Rentals

DELIVERIES by truck are becoming increasingly difficult and costly. Reo Truck Leasing Co., Lansing, Mich., issued an enlightening 16-page booklet on truck leasing. It may be had upon request. To anyone interested in saving on delivery charges, this book may be of value.

Liquid Tight Container

HINDE & Dauch Paper Co., Sandusky, O., has developed a shipping container that is liquid tight for weeks. It may be closed with self-locking ends which eliminate the use of tape, glue or stitching. The corrugated shipper is supplied with glassine-laminated inside lining, an outside coating or combination of the two.

Powder Blender

A NEW bulletin on dry powder blending or impregnation has been issued by Young Machinery Co., Muncy, Pa. This company has made numerous efficient installations and is expert in this field.

Guar Gum

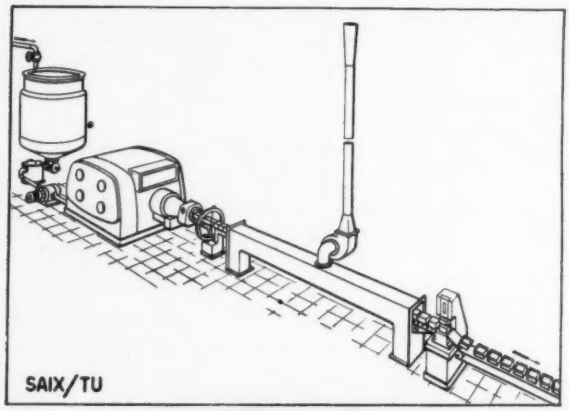
GUAR flour or gum, first introduced by General Mills several years ago in a limited way, is being more vigorously promoted by Stein, Hall & Company, New York 17. This natural, vegetable, pure food colloid is useful in products that require thickening or higher viscosities by the addition in low concentration of a suitable agent. Trade named, "Jaguar," the material is available in commercial qual-

MECCANICHE MODERNE

CORSO SEMPIONE, 51 (Italy) BUSTO ARSIZIO

PATENTED Cooling Extruder Type SAIX for the continuous chilling and finishing of every kind of laundry soap, with 62%, 52% as well as with a T.F.M. content as low as 35%, either from full boiled kettle soap or from soap pads by a continuous process.

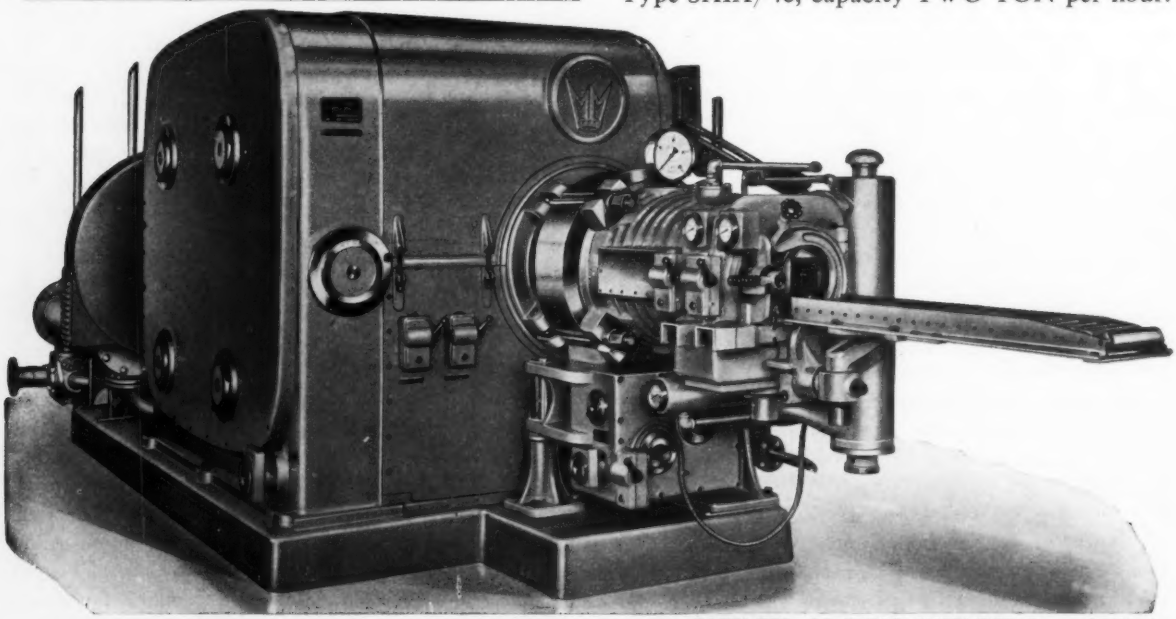
From the saponification (molten hot soap) to the finished bars (cold solid soap) in a single stage without any interruption or structural change. In this plant, completed by a preliminary evaporator of the molten hot soap, it is possible to manufacture 72-73% T.F.M., soaps with an opaque, translucent or transparent appearance. The soap is continuously formed in bars of every desired size or in pellets for further milling procedure.



SAIX/TU

In this plant it also is possible to manufacture conventional or transparent toilet soaps without any formation of hard spots.

Type SAIX/1c, capacity HALF TON per hour.
Type SAIX/2c, capacity ONE TON per hour.
Type SAIX/4c, capacity TWO TON per hour.



PATENTED COOLING EXTRUDER Type SAIX/4c

ities. A descriptive booklet and free sample are available.

Laundry Soap

(*From Page 47*)

hand, for the data on hard water washes summarized in the bottom half of Table 2, two rinses are better than one at the one percent level of significance: that is, there is about one chance in a 100 that two rinses will not be better than one rinse. Thus, the hypothesis that one rinse would be as effective as two rinses in laboratory test procedures with any combination of variables was not confirmed.

140 F rinse vs. 100 F rinse—The effect of 140 F versus 100° F. rinse water temperature was investigated only for swatches with initial reflectances of 125 to 158. No difference, at the five percent level of significance, was obtained either in the soft wash water tests with .08 percent soap concentration or in the hard wash water tests with .46 percent soap concentration. That is, one or two 100° F. rinses were as effective as one or two 140° F. rinses.

Summary

CLEANING results obtained with home laundering procedures depend on amount of initial soil in the fabric. Expressed in Hunter units, the amount of soil removed is greater for swatches with low initial reflectances (125 to 158) than for swatches with high initial reflectances (465 to 553). The percentage of soil removed relative to the amount that could be removed, however, is lower for the swatches with the lower initial reflectances. (Percentage removed is obtained by dividing 1000 minus the initial reflectance into the final reflectance and multiplying by 100.) An obvious implication for test procedure is that if standard soil swatches are used, sets of swatches with different initial reflectances should be investigated under the same washing conditions. Also, a practical point to be noted is that, for the usual family wash, a homemaker is more concerned with getting fabrics with a "grayish" soil white than she is with getting fabrics with a black soil gray.

Relatively large amounts of soap are needed with hard water to get reflectance values approaching those obtained with soft water. Also, the fabric washed in hard water developed a harsh and objectionable "hand" or "feel." Stated conversely, much smaller amounts of soap need be used in soft water than in hard water. Also, the fabric washed in soft water had a soft, pleasant "hand."

The most general conclusion that can be drawn from this investigation is that considerable additional experimental work is needed to establish a testing procedure which will give results that are definitely indicative of results to be anticipated for home washes.

References

1. Williams, Velma. Removal of Soil from Fabric Laundered in Home Washers I. Unpublished M. S. thesis. Iowa State College Library.
2. Beale, Margaret. Removal of Soil in Home Washers II. Unpublished M. S. thesis. Iowa State College Library.

Soap Assn.

(*From Page 91*)

new. He had seen them in Germany in 1936 and had showed little interest in them because of the difficulty of selling American housewives a detergent product that would not foam. Sudsing has become such an integral part of soap advertising and so heavily promoted in advertising of washing products that "I would not want to be called upon to sell a non-sudsing product to the American housewife," Mr. Bodman stated. He added that he did not believe that suds interfere with the washing action of detergents. Excessive foaming in sewage he indicated was more the fault of phosphates than the detergents.

Mr. Bodman then went on to list and explain the function of various detergent ingredients.

As to the future, he said: "certainly synthetic detergents offer definite possibilities for lightening household cleaning problems. The utilization of the greater cleaning efficiency of some non-ionic detergents has not been completely harnessed. In petro-chemicals as well as in other fields of organic chemistry, there is reason to believe new and improved products for removing soil and preventing its redeposition on the fabric during the washing cycle will be made available. Such developments may bring about changes in the physical form of detergents as marketed to the housewife. More emphasis perhaps is on the liquid as against the solid granular form. Certainly the former offers in some respects a wider range of detergent selection than the latter."

Market Research

MARKET research, what it is and what function it can perform for the chemical specialty manufacturer was discussed at the Industrial Soap Division meeting, the afternoon of Jan. 28, by A. G. Tunstall of Pennsylvania Salt Manufacturing Co., Philadelphia. Sales areas in which market research may function as a tool of management to facilitate the solution of problems, as outlined by Mr. Tunstall are: the analysis of economic trends, measurement of sales potential, measurement of sales trends, studies of product and packaging, analysis of distribution, analysis of profitability, demand and price studies, analysis of competition, determining the consumer reaction, determining dealer-distributor reaction, measuring advertising effectiveness.

The final talk of the session, "Increased Profits through Industrial Soap Cost Accounting," by W. I. McNeill, New York management consultant, reviewed how cost accounting can tell how much money is being made or lost and where it is being made or lost. Cost accounting should be viewed as an investment: spend a dollar to save ten.

Why it's Better to *Buy* VICTOR

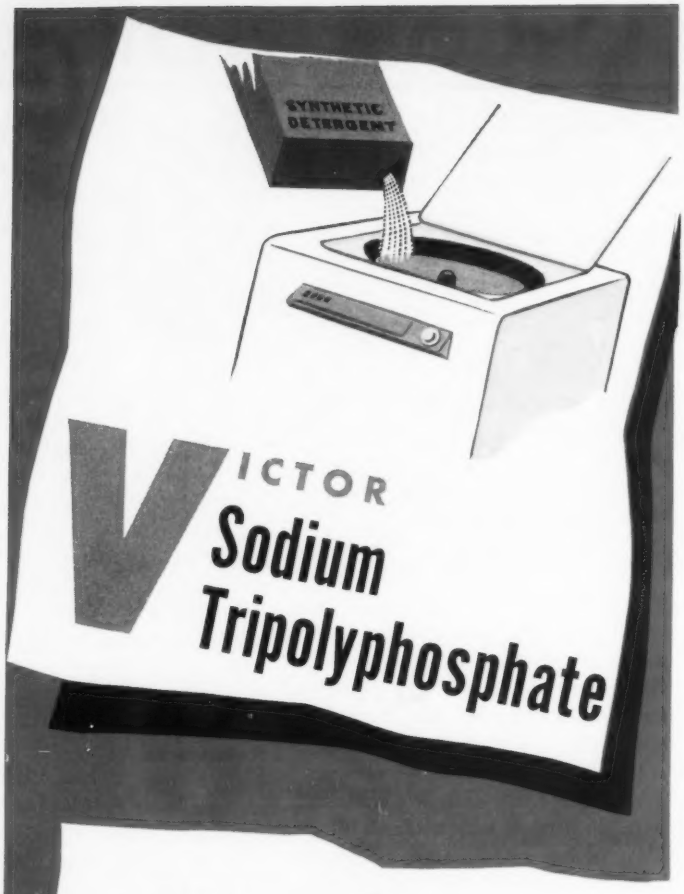
56 years of experience in the field of phosphates has made Victor more than a mere "source of supply." Victor customers get phosphates that are remarkably uniform, excellently packaged, promptly shipped and competitively priced, from single bags to bulk hoppers.

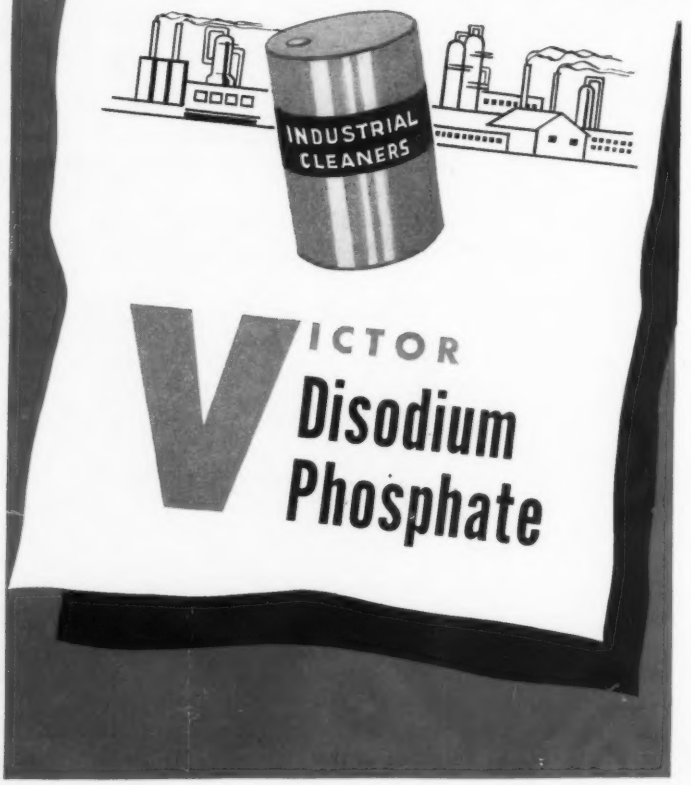
And there's still more! There's this matter of all the practical knowledge about soaps, scouring powders, water conditioning, detergent usage, etc. that Victor has developed through the years. Victor customers get that, too. If you haven't tried the combination of Victor products plus Victor service on *your* process or product problems, then you're in for a pleasant surprise. It's the combination that has led so many wise buyers to say . . . "It's better to buy Victor."

VICTOR

Dependable Name in Chemicals for 56 Years

PHOSPHORUS
PHOSPHORIC ACID
PHOSPHORUS CHLORIDES
PHOSPHATES
FORMATES
OXALATES
ORGANOPHOSPHORUS COMPOUNDS





Products and PROCESSES

Improved Soap Presses

A printing and molding press for soap exhibits two basic features: 1. an intake horizontal belt conveyor upon which soap cakes may be charged by hand or received from a suitable machine without the necessity of continuity and closeness of the pieces forming the stream of cakes, and 2., an automatic electromagnetic device placed across the intake conveyor belt which at the approach of each soap cake and by action of same against a thin plate, causes the release of a plunger which, in turn, pushes the cake timed with the phase of the machine movements, between the jaws of a feed arrangement comprising two plates and which conveys the soap cakes along the work tables. British patent 697 741, 1953, S.A.F.F.A., Milan, Italy.

— ★ —

Cream Shampoo

Use of synthetic detergents and emulsifying waxes in various formulations is illustrated by examples in the December issue of *Schimmel Briefs*, published by Schimmel & Co., New York. Two liquid cream shampoos and a bubble bath liquid are included:

Liquid Cream Shampoos

Duponol WA paste (sodium lauryl sulfate, E. I. du Pont de Nemours & Co.)	30.00
cetyl alcohol	2.20
propylene glycol	1.70
beeswax	2.80
Veegum (inorganic thickener, R. T.Vanderbilt Co.)	0.75
water	62.55
Ermosa S311 (perfume, Schimmel & Co.)	0.4

Procedure: add "Veegum" to the water slowly, continually agitating until the dispersion is smooth. Add "Duponol" and heat to 65-70°C. Heat cetyl alcohol, propylene glycol and beeswax together to 65°C and add the detergent solution. Stir while mixture cools.

Ultrawet 60L (organic salt of an alkyl aryl sulfonate in a 60% aqueous solution, Atlantic Refining Co.)	33
Ninol 2012 (fatty acid alkanolamide, Ninol Laboratories, Inc.)	2
magnesium stearate	2
octadecyl alcohol	1
water	62
Sorrento Spring S5905 (perfume, Schimmel & Co.)	0.4

"Ninol" is added to increase viscosity and lathering power of the shampoo and counteract the drying effect of the alkyl aryl sulfonate on the hair and scalp. Magnesium stearate and octadecyl alcohol make the product opaque and pearly.

Bubble Bath Liquid

Lathanol LAL (sodium lorol sulfoacetate, National Aniline Division)	4.76
Mirapon LF ((Miranol Chemical Corp.)	23.90
Veegum	0.48
water	70.86
Honeysuckle A356 (Perfume, Schimmel & Co.)	2.0

Procedure: add "Veegum" to water slowly, agitating continually until a smooth dispersion is formed. Add detergents and heat to obtain a uniform mixture. Stir without incorporating air while the mixture cools. The "Veegum" serves to make the product opaque.

— ★ —

Heat-Sealed Tubes

A collapsible tube container has its permanently closed end heat-sealed by the heat-melting and subsequent setting of a wax. The setting may occur upon withdrawal of heat or with additional cooling. Such heat-sealing would prevent evaporation and leakage through the end of the tube, thus rendering a collapsible tube a satisfactory container for such liquids as cleansing agents and disinfectants. British patent 698 168, R. Cohen, London.

— ★ —

New Volatile Insecticide

A volatile insecticide comprises a mixture of DDT and one or more readily vaporizable solid chlorinated hydrocarbons, such as paradichlorobenzene and/or hexachlorethane. The DDT content of the mixture is not to exceed 10 per cent. In an example one per cent of DDT is dissolved in a molten mixture of equal proportions of parachlorbenzene and hexachlorethane, and thereafter the mass is solidified and pulverized. British patent 619,687, Electrolux Ltd.

— ★ —

New Pesticide Use

Octamethylpyrophosphoramide (OMPA, Schradan), a systemic insecticide, now may be used for the control of aphids and mites on cotton, it was announced recently by Monsanto Chemical Co., St. Louis, the sole producer. A technical bulletin containing information on the storing, handling and formulation of OMPA is available on request from the company's Organic Chemical Division.

— ★ —

DDT Paint, Spray Formula

An insecticidal preparation for application to surfaces as a paint or spray comprises an emulsion in water of a volatile oil, a water-soluble emulsifier, DDT or other compound of the general formula $(X\text{-}C_6H_4)_2CH\text{-}CY_3$, X being chlorine, bromine, fluorine, methoxy, ethoxy or ethyl, and Y being chlorine, bromine, or fluorine dissolved in the oil phase, a proportion of castor oil in the oil phase, and a solubilizing agent for the DDT or similar compound for maintaining it in solution in the castor oil film formed after application through evaporation of the volatile oil and water. Specified volatile oils are kerosene and methyl cyclohexanone. Suitable solubilizing agents are heavy coal tar naphtha, gas oil or pine oil. The emulsifying agent may be a long chain hydrocarbon sulfuric acid ester or a condensation product of cetyl alcohol and ethylene oxide. The oil phase may also contain ricinoleic acid or a condensation product of castor oil with abietic acid or other resin acid, an anti-oxidant such as hydroquinone and/or pyrethrins or rotenone. The oil phase is preferably 45-75 per cent by volume of

(*Turn to Page* 105)

NEW Patents

The information below is furnished by patent law offices of

LANCASTER, ALLWINE & ROMMEL
402 Bowen Building
Washington 5, D. C.

The data listed below is only a brief review of recently issued pertinent patents obtained by various U. S. Patent Office registered attorneys for manufacturers and/or inventors. Complete copies may be obtained direct from Lancaster, Allwine & Rommel by sending 50c for each copy desired. $1.00 for Canada. They will be pleased to give you free preliminary patent advice.

No. 2,662,040. Mildew-Resistant Mineral-Coated Soap Wrap, patented by Joseph J. Thomas, Westbrook, Maine, assignor to S. D. Warren Company, Boston, Mass., a corportion of Massachusetts. The patent describes a mold-nutrient-free supercalendered mineral coated paper soap wrapper comprising a paper base and a mineral coating, said paper base consisting essentially of cellulose fibers and said mineral coating consisting essentially of finely divided mineral matter, a synthetic adhesive elastomer of the group consisting of styrenebutadiene copolymers, butadiene-acrylonitrile copolymers, styrene-isoprene copolymers, methyl acrylate-acrylonitrile copolymers and polychloroprene and a protective colloid of the group consisting of polyvinyl alcohol, methyl cellulose, carboxymethyl cellulose and hydroxyethyl cellulose.

No. 2,664,381. Parasiticidal Lotion, patented by Allen L. Omohundro, Wilton, and Franz M. Neumeier, Fairfield, Conn., assignors to McKesson & Robbins, Incorporated, Bridgeport, Conn., a corporation of Maryland. A parasiticidal lotion for body parasites is described, containing pyrethrum extract, sesamin extract, apiol, dinitroanisole, benzyl alcohol, oleic acid as an intermiscible solvent for said ingredients, water and a mono-iso-octyl-phenyl-polyoxyethylene-glycol-ether having the formula

$$C_8H_{17}—C_6H_4—O—(CH_2—CH_2—O)_n—CH_2CH_2OH$$

as an emulsifying agent to form a clear, stable, homogeneous lotion.

No. 2,664,382. Parasiticidal Lotions, patented by Allen L. Omohundro, Wilton, and Franz M. Neumeier, Fairfield, Conn., assignors to McKesson & Robbins, Incorporated, Bridgeport, Conn., a corporation of Maryland. This patent also describes a parasticidal lotion for body parasites containing pyrethrum extract, sesamin extract, apiol, dinitroanisole, benzyl alcohol, an intermiscible solvent for said ingredients, water and emulsifying agents to form a clear, stable, homogeneous lotion, said intermiscible solvent being oleic acid and said emulsifying agents including a sulfonated oil and dioctyl sulfonosuccinate.

No. 2,663,664. Miticidal Dihydrazide Composition, patented by Jacob Shore, Buffalo, N. Y., assignor to Mathieson Chemical Corporation, a corporation of Virginia. The patent refers to a composition having miticidal activity which consists essentially of a dispersion of about 0.5 to 5 weight per cent of an acyclic dihydrazide of an aliphatic dicarboxylic acid in an inert compatible powder as a carrier, said acid being saturated, unsubstituted and straight chain, and containing from 3 to 10 carbon atoms.

No. 2,664,430. Fatty Acid Treatment, patented by Martin David Reinish, Brooklyn, and Joseph Patrick Caldarera, Flushing, N. Y., assignors to Colgate-Palmolive-Peet Company, Jersey City, N. J., a corporation of Delaware. The patent covers a method of producing light-colored fatty acids from natural fats and oils that includes hydrolyzing said fats and oils to produce crude fatty acids, introducing said crude fatty acids into a surge drum, and distilling said crude fatty acids, the step that includes bringing the crude fatty acids into intimate contact with air by bubbling air through said crude fatty acids while in the surge drum for a period of about 1 to 2 hours at a temperature of about 240° to 260° F. to oxidize the color-forming bodies therein to render said bodies non-volatile.

No. 2,662,849. Process for Treating Tall Oil, patented by Emmett P. Glynn, Chicago, Ill., and Burt F. Hofferth, Ames, Iowa, assignors to Armour and Company, Chicago, Ill., a corporation of Illinois. The patent covers in a process for treating tall oil, the steps of fractionally distilling tall oil, withdrawing an overhead fraction consisting mainly of low-boiling unsaponifiable matter and palmitic acid, taking off a second fraction consisting mainly of oleic acid and linoleic acid and fractionally crystallizing the second fraction to obtain oleic acid in the solid phase.

No. 2,658,873. Germicidal Detergent Composition patented by Melvin Wayne Marcoux, Chicago, assignor to Armour and Company, Chicago, a corporation of Illinois. The patent covers a germicidal detergent composition which provides a clear solution when diluted to 1,000 parts with water, comprising trisodium phosphate, tetrasodium pyrophosphate, a water-soluble quaternary ammonium halide having germicidal properties, and sodium carbonate, the proportions by weight being from 1 to 3 parts of the quaternary ammonium compound,

No. 2,660,567. Water-Dispersible Metal Soap Compositions, patented by Joseph Cunder, East Orange, and Francis J. Licata, West Caldwell, N. J., assignors to Nopco Chemical Company Harrison, N. J., a corporation of New Jersey. As a new composition of matter the patent describes a solid comprising an intimate mixture of a water-insoluble soap of a saturated fatty acid containing from 10 to 22 carbon atoms and an alkylolamide, said alkylolamide being prepared by substantially completely amidifying an alkylolamine containing from 2 to 7 carbon atoms, each molecule of said amide containing at least one fatty acyl radical containing from 8 to 22 carbon atoms, said composition of matter being characterized by the property of being readily dispersible in aqueous media and adapted to form free-flowing concentrated aqueous dispersions with aqueous media.

No. 2,658,907. Refining Fatty Oils, patented by George H. Palmer, Fanwood, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware. The patent discloses in the refining of a fatty oil by a series of at least two paracritical fractionations with a low boiling solvent having a critical temperature not substantially higher than 450° F., each of said fractionations being carried out in a vertically extended fractionation zone with an extract phase outlet at the upper end, raffinate phase outlet and solvent inlet near the lower end, and a charge oil inlet intermediate said ends, the improvement which includes the steps of: charging said fatty oil and a solvent comprised principally of said low boiling solvent to a first vertically extended fractionation zone and regulating the conditions of temperature and pressure therein to form a primary extract phase and a primary raffinate phase; separately withdrawing said extract and raffinate phases from said extract and raffinate phase outlets respectively and charging to a second vertically extended fractionation zone a charge derived from one of said phases; countercurrently contacting said charge with said low boiling solvent in said second zone and regulating the conditions of temperature and pressure therein to fractionate said charge into a secondary extract phase and a secondary raffinate phase; collecting a portion of said

(*Turn to Page* 105)

PROCTOR

Precision Engineered Equipment for Soap Manufacturers

Automatic System for Large Plants Carefully engineered chilling machine and drying system combine to provide an entirely automatic system for processing soap for final use as bars, flakes, or powder . . . and to process many different formulae over a wide range of moisture content. Flexibility of this system assures uniform results over a wide range of production requirements.

Automatic System for Small Plants All of the advantages of the Proctor completely automatic flake soap system so widely used in large plants—can and are being made available to plants with output requirements of 100 to 500 pounds per hour. The precision operation and dependability of the larger systems are engineered into these systems for smaller plants at commensurate installation costs.

Special Equipment Proctor engineers' depth and breadth of experience in designing and building precision processing equipment extends into many phases of the process industries. With this background they are in excellent position to assist any manufacturer of soap or synthetic powder in developing special equipment to meet changes in his product or processing. When you have a problem involving new equipment or processing—call Proctor engineers first.

Proctor & Schwartz • Inc •

625 TABOR ROAD

PHILADELPHIA 20 • PA •

Sonneborn

HIGHLY REFINED

Petroleum Sulfonates

. . . made to your specifications

for such uses as . . .

- ***rust preventive formulations***
- ***soluble cutting oils***
- ***soluble textile oils***
- ***emulsion degreasing compounds***
- ***fuel oil additives***
- ***emulsifiers for agricultural and insecticide sprays***
- ***special emulsifying formulations***
- ***dispersants and wetting agents***

Within the past few years, Sonneborn has developed different types and new grades which now permit a wide range of new applications for which petroleum sulfonates were not previously considered.

Ask Sonneborn about PETRONATES*, the oil soluble series available in various molecular weights; HYPONATES*, oil soluble, oil free; PYRONATE*, a water soluble sulfonate; and the new ISO-PETRONATES*, free flowing at room temperature.

For further information, write to Dept. PS, L. Sonneborn Sons, Inc., 300 Fourth Avenue, New York 10, N. Y.

*Reg. U. S. Pat. Off.

Achieved by Sonneborn RESEARCH 1903 • 1954

L. SONNEBORN SONS, Inc.

New York 10, N. Y.

SOAP PLANT *Observer*

By John W. McCutcheon

TWENTY five years ago the fatty raw materials of the American soap maker consisted mainly of tallow, coconut oil, foots from various edible oils and rosin. If a soap plant were large enough to include hydrogenating equipment, marine oils could be added to the list.

Tallow and coconut oils are still important soap raw materials, but the use of foots has changed. Products such as powdered soaps, whose formulae could absorb 15 to 20 percent vegetable oil foots have now considerably diminished in volume. Also more and more foots are finding their way into processing plants that split, distill and otherwise treat the acids to produce superior products for other industries, notably the coatings field. A survey conducted several years ago showed that at least fifty percent of all vegetable oil foots produced were processed to high grade fatty acids. A good portion of these no doubt found their way back to the soap kettle.

Rosin is no longer an important soap making material for two reasons: first, because of the diminishing size of the laundry bar soap field, and second because rosin has priced itself out of soap, due to increased uses in various other fields such as the paper size industry. Rosin, like foots, is being converted in increasing amounts into more useful derivatives such as esters, hydrogenated products, etc. In fact, producers and users of rosin products have been searching for years for new sources and have found one in tall oil which contains about 40 percent rosin. The paper companies, who produce tall oil as a by-product in pulp mills, should consider tall oil as a source of rosin for their finishing operations. The oil is being processed more and more for its rosin content. Rosin

which used to sell for two cents per pound sells now for six cents which gives some indication of its changed status. At least one company is fractionally distilling the refined grade to yield substantially pure fatty acids and pure rosin. This trend no doubt will continue. The majority of the product, however, is still being sold as the refined grade containing mixed fatty acids and rosin, but its interest to the detergent manufacturer has changed radically.

The first tall oil on the market was a rather crude product which turned black almost instantly when converted to the alkaline soap. Its use was confined largely to soaps where rosin content was desired or was not objectionable and where the fatty acid could be considered a part of the fat charge. In general, the producer felt that if it were cheap enough, some soaper would buy it —and he did! The difficulties encountered were legion. The consultants were busy in those days looking over the sides of tanks containing a heavy black goo which was too soft to shovel and too viscous to run to the sewer. Invariably the purchaser was away on a trip somewhere!

Tall oil is now being used of course by the soap industry in large quantities, but for an entirely different purpose. The product also, is in a different category. It has been refined to a light colored, moisture free product, with a constant rosin content which is held closely within well defined limits. Sulphur compounds are still present, but to a lesser degree. The product now finds a major use in industries other than detergents such as the paint and varnish fields. Detergent manufacturers do consume large quantities principally for condensation with ethylene oxide to yield various types of non-ionic synthetics which may or may not have foaming properties. Some small portion is still used as a liquid soap base for industrial applications.

On a recent trip in the south, the writer took time out to inspect a plant where tall oil is being refined on a large scale. In general, crude tall oil made by acidifying the black liquor skimmings from Kraft pulp mill operations, is refined either by the distillation or acidification process. The products are usually the same. At the plant inspected, the acidification process was used. The crude product is generally mixed with a light petroleum solvent (although this is optional), circulated through a cooler and then pumped to a reaction tank where strong sulphuric acid is added. The mixture is circulated and run to a settling tank where the acid sludge is run off. The solvent tall oil mixture is then put through a distillation column where the majority of the solvent is removed in two stages, then through two steam jet stripping columns for the final removal of solvent, a holding tank for the final removal of trace moisture and thence to storage. The solvent passes through a water condenser and is returned to storage. The rosin content of the finished product is controlled by blending various types of crudes to yield a final rosin content of 38 to 42 percent. The crudes may vary from 37 to 60 percent. Strict laboratory control is maintained throughout all operations and equipment inspected included fractionating stills of all

sizes, Gardner viscosity equipment, color comparators to the Gardner scale, electrometric titration units etc. Regular analysis includes moisture and rosin content, color, viscosity, and acid number. In addition to the above described regular refined product, a variety of refined grades are made by supplementary processing to remove certain sulphur bearing organics which cause odor and color changes under certain conditions. The processes used are beyond the scope of this note.

The question was asked—"Could all sulphur compounds be removed." The answer was "Yes, provided the use to which the product is put could bear the added expense." So far, apparently, this point is not critical, although it may become so in the future. The writer feels that the economics of tall oil should be closely watched, particularly as a cheap source of an oleic-linoleic acid mixture.

* * *

AMONG new items of laboratory equipment noted is the "Hydropulse" pump, manufactured by Scott and Williams, New York. It employs a rubber expansion chamber with stainless steel check valves which permit liquids to be pumped without contact with any moving parts except the pulsator. Present sizes are from 0.5 to 2.5 gpm with pressures up to 3000 psi.

* * *

THE Humidifier is another device noted in use in one of the labortories visited. It is a strip of paper with seven small circular white areas about one half inch in diameter. These are chemically treated so that they turn blue in succession as the humidity of the room or area increases. The bottom spot is blue at 70 percent relative humidity, the top spot at 10 percent. The humidity can be estimated within 10 percent by a glance at the chart. After prolonged use, a new strip is tacked up. It is manufactured by Andrew Technical Service, Chicago.

—★—

Nopco Names Two

Nopco Chemical Co., Harrison, N. J., recently announced the appointment of Arthur M. Gladstone as chief chemist of its newly organized agricultural chemicals division, which markets the "Agrimul" series of agricultural emulsifiers. Before joining Nopco, Mr. Gladstone served as assistant supervisor of agricultural chemical research with Pittsburgh Coke and Chemical Co., Pittsburgh, Pa.

At the same time the appointment of Robert F. McClellan as vice president and general manager of Yocum Faust Ltd., London, Ont., Nopco subsidiary, was announced. Mr. McClellan was formerly midwest district manager of Nopco.

Products and Proc.

(*From Page 99*)

the emulsion.

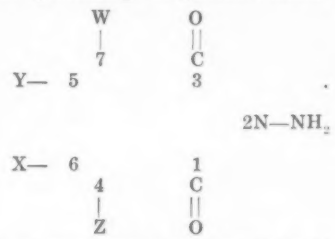
The provisional specification describes also solutions of DDT in castor oil and the use of the condensation product of castor oil with a resin acid as an alternative to castor oil in making the products. Specification 569429 is referred to. British patent 609762, H. Hurst and J. H. Schulman.

Patents

(*From Page* 101)

upflowing extract phase from said second fractionation zone at a point substantially above the charge oil inlet; heating said withdrawn extract phase material to evaporate at least part of the solvent content thereof and to produce a reflux material substantially heavier than said withdrawn extract phase; returning said reflux material to said second fractionation zone at a point above its charge oil inlet; flowing extract phase upwardly to a region of higher temperature above said sidestream withdrawal and said reflux return; withdrawing a final secondary extract phase from above said region; recovering a product from a part of said final secondary extract phase, and diverting another part to the lower portion of said first fractionation zone to serve therein as solvent.

No. 2,657,169. N-Aminophthalic Imides and Salts thereof as Fungicidal Compositions, patented by Waldo B. Ligett, Berkley, Rex D. Closen, Detroit, and Calvin N. Wolf, Ferndale, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware. A fungicidal composition is described, consisting of a uniform dispersion of an active ingredient, present in amount less than about 50 per cent by weight, which is selected from the group consisting of a compound possessing the general formula



and salts thereof, wherein W, X, Y and Z are selected from the group consisting of hydrogen, halogen, nitro and amino, in admixture with an inert fungicidal adjuvant as a carrier thereof.

No. 2,660,601. Separation of Fatty Acids From Hydrocarbon Solutions Thereof, patented by Norman L. Dickinson, Basking Ridge, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware. A process for synthesizing fatty acids by the catalytic oxidation of hydrocarbon waxes having a molecular carbon content in the range between about 16 and about 30 carbon atoms is described which involves the steps of: continuously flowing said waxes in a liquid state through a reaction zone and intimately contacting said waxes with an oxidizing gas and an oxidation catalyst therein; continuously withdrawing effluent from said zone and introducing said effluent into a vertically extended fractionation zone having a solvent inlet and raffinate phase outlet near the lower end, an extract phase outlet near the upper end, and an effluent inlet in the intermediate portion; continuously introducing into said fractionation zone through said solvent inlet a solvent having a critical temperature not exceeding about 450° F. and countercurrently contacting said effluent with said solvent under liquefying pressure; adjusting the temperatures within said fractionation zone in the range near the critical temperature of the solvent in which solubility decreases as temperature increases to separate said solvent and effluent mixture into an extract phase containing a concentration of alcohols and other incompletely oxygenated products, and a raffinate phase containing a concentration of fatty acids which are soluble in said solvent at lower temperatures; continuously withdrawing extract and raffinate phases from said extract and raffinate phase outlets respectively; separating catalyst from said raffinate phase and recycling it to said reaction zone; and recovering a fatty acid product from the remainder of said raffinate phase.

Porcelain Cleaner Spec.

Comments on a proposed interim federal specification on liquid porcelain cleaner, P-P-00586 (GSA-FSS), were asked for recently by the General Services Administration, Federal Supply Service, Washington, D. C. Copies of a draft of a proposed specification were mailed out with a covering letter asking for comments. The specification when promulgated will be used in the purchase of the porcelain cleaner. The specification calls for a clear liquid, free of sediment or sludge formation when tested as specified. The product must remove stain from porcelain in five minutes. The product in contact with porcelain shall produce a lesser degree of etch marks than a specified control formula. In addition, the specification calls for a product that "shall be correctly inhibited to minimize metallic corrosion. Metal specimens immersed in the cleaner shall evidence no rusting and limited hydrogen bubbles when tested as specified."

The General Services Administration also released an interim federal specification on technical trisodium phosphate. The specification bears the designation O-T-0067la(GSA-FSS).

—★—

Armour Licenses Arizona

Armour and Co., Chicago, has licensed Arizona Chemical Co., a subsidiary of American Cyanamid Co., New York, to use Armour's patents on fractional distillation of fatty acids, it was announced recently. This license is the outgrowth of a patent infringement suit brought by Armour against Arizona Chemical Co. in U. S. District Court at Tallahassee, Fla. on March 22, 1951. The infringement, charged by Armour, involved distillation of crude tall oil at Arizona's plant at Panama City, Fla. The case was tried in October, 1952 and was in its final stages when a settlement was reached whereby Arizona acknowledged validity of the Armour patents and arranged for the license.

This is the second license granted under the patents in the United States, other licenses have been granted in Great Britain and Norway.

—★—

Review Tall Oil Potential

Production approaching 1,000 tons a day of crude tall oil within the next few years was predicted at the semi-annual meeting of the Tall Oil Association held recently at the Cloister, Sea Island, Ga. Current production approximates 200,000 tons per annum, according to A. Scharwachter, president of the association and vice president of Arizona Chemical Co., New York.

—★—

Am. Can Advances Geier

A. W. Geier, formerly assistant general credit manager of American Can Co., New York, has been elected assistant treasurer and is now responsible for the overall credit operations of the company, it was announced recently. Mr. Geier succeeds J. E. Sarver, who has retired. At the same time C. D. Polhamus was appointed credit manager of the firm's Atlantic division.

—★—

Kay Daumit Div. Changes

William H. Gaines was recently advanced to the post of sales manager of the Kay Daumit Division of Colgate-Palmolive Co., Jersey City, N. J., succeeding Howard P. McClure, recently appointed general sales manager of the company's toilet article department.

Mr. Gaines, a native of Cartersville, Ga., joined Colgate in 1930 and spent a number of years in the firm's soap and toilet article departments prior to the formation of Kay Daumit Division, when he was named eastern field sales manager.

Samuel E. Lindley, Jr., has been advanced to replace Mr. Gaines as field sales manager for the division's eastern region. Mr. Lindley supervises sales and promotion in the states east of and including Michigan, Indiana, Kentucky, Tennessee and Alabama. He is a native of Sullivan, Ind., and joined Kay Daumit after the war. Mr. Gaines has served as sales representative in the southeast and middle west.

Purex Unifies Western Sales

Purex Corp., Ltd., South Gate, Calif., has consolidated its three western divisions, the Pacific Northwest, the Central Pacific, and the Pacific Intermountain division, into one to be known as Pacific Coast Division, it was announced recently by R. F. Sharp, general sales manager. James L. Powell, previously division sales manager of the Pacific Intermountain Division, directs the new overall division as sales manager. He has been with Purex since 1946.

Consolidation of the three territories does not mean any change in broker and sales representations. Dino Mattoni, who has been representing the firm in the East for some months, now directs the Pacific Northwest division as assistant division sales manager in place of Walter Wild, who has resigned. Ferdinand Jordan remains as assistant division sales manager of the Central Pacific division. Ralph Vanderlip has been appointed assistant division sales manager of the Pacific Intermountain division and in this capacity acts as direct assistant to Mr. Powell.

—★—

Expands Tall Oil Plant

An expansion program, which will increase by two and one-half times the tall oil separating and refining facilities of the company's plant at Panama City, Fla., was voted by the directors of Arizona Chemical Co., New York, Richard E. Sumner, president, announced last month. Arizona, a jointly owned subsidiary of American Cyanamid Co. and International Paper Co., both New York, is a major producer of crude and distilled tall oil and tall oil fatty acids.

A substantial part of the increased production facilities at the Panama City plant will be devoted to tali oil fatty acids and tall oil rosins, of which Arizona is the sole producer.

Engineers for the new plant facilities are Stone & Webster Construction Company's Badger division. Building was to start almost immediately.

Sanitary Chemicals Section

Consider . . .

If you are a manufacturer of disinfectants, insecticides, floor waxes, aerosol products, soap and detergent specialties, automotive chemicals, and kindred chemical specialties, consider the advantages of membership in the Chemical Specialties Manufacturers Association.

For almost 40 years, leaders in the industry, large and small alike, have been members of CSMA and identified with its activities. Cost of membership is low. Its services are broad and helpful. Contacts within its membership are valuable.

If your firm is eligible for membership, we shall be glad to send you full information. Write to

H. W. HAMILTON, *Secretary*

CHEMICAL SPECIALTIES MFRS. ASSOCIATION — FOUNDED CSMA 1914

Chemical Specialties Manufacturers Association, Inc.

110 East 42nd Steet — Melvin Fuld, President — New York 17, N. Y.

Emil G. Klarmann, 1st. Vice-Pres. — Harry E. Peterson, 2nd Vice-Pres.

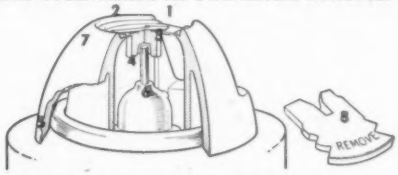
Peter C. Reilly, Treasurer — H. W. Hamilton, Secretary

SCHRADER TRIPLE-TESTED VALVES MEAN LOWER REJECTION RATES

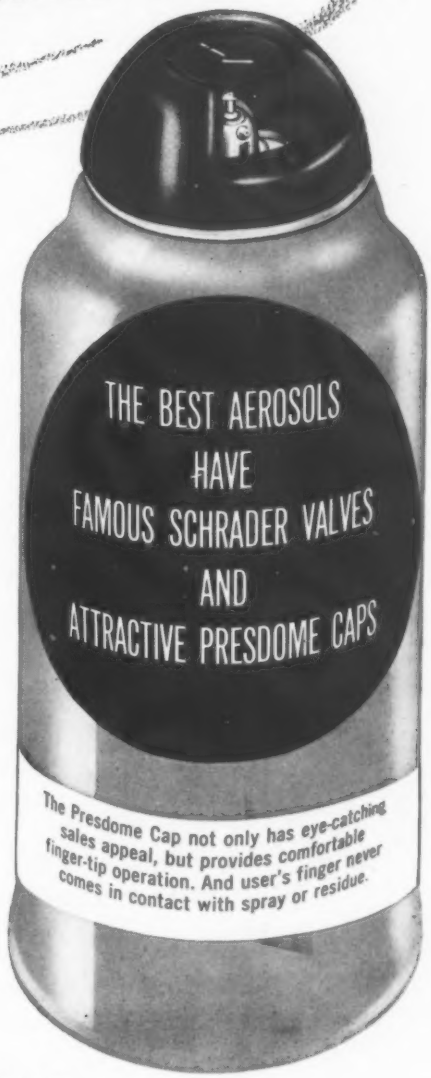
Aerosol loaders who have used vast numbers of Schrader Valves have found lower rejection rates, because Schrader Aerosol Valves receive the most thorough inspection. They're triple-tested . . . every critical component part 100% machine tested for correct tolerances. Low rejection rates mean lower costs. And the elimination of 'dud' returns from retailers protects the reputation of your product.

No Aerosol Product is Better than its Valve—No Valve is Better than Schrader's

Schrader produces Aerosol Valves with fully automatic machinery . . . maintaining complete control of production, because nothing but raw materials are bought outside. Schrader even makes its own metal closures.



1. Arrow points clearly to direction of spray
2. Flexible operating portion of Presdome is countersunk
3. Solid button recessed for valve pin
4. Valve pin designed for positive spray shutoff
5. Solid plastic dome grips closure shoulder permanently —no slipping or turning
6. Famous Schrader seating principle is used in the valve
7. Caps available in various colors to match your label . . . by request
8. Special tamper-proof locking tab is available



Schrader
REG. U. S. PAT. OFF.

AEROSOL VALVES made by the manufacturer of the Standard Tire Valve since the first Automobile

Use our research facilities to develop a superior Aerosol package. Send for samples and further information.

MAIL THIS COUPON TODAY

A. SCHRADER'S SON
Division of Scovill Manufacturing Company, Incorporated
470 Vanderbilt Avenue, Brooklyn 38, N. Y. Dept. SS

Please send me ☐ Samples ☐ Brochure ☐ Price List

Name_____ **Title**_____

Company_____

Address_____

Watch Spring Sales MUSHROOM with

CHLORDANE

for control of LAWN INSECTS

There'll be big profits reaped this spring by formulators and dealers who stock up to meet the fast-growing demand for effective, economical Chlordane insecticides.

Chlordane is the most outstanding insecticide on the market today for the control of lawn and turf insects. It is widely used on golf courses, in parks, by civic or private institutions, home lawns . . . *anyplace* where positive control of such pests is desirable. Chlordane controls ants, chiggers, white grubs, earwigs, chinch bugs, mole crickets, Japanese beetle larvae, and sod webworms or lawn moths. Don't miss the big profits to be made this Spring on Chlordane insecticides, write *today* to your Chlordane supplier or to—

VELSICOL CORPORATION
Division of Arvey Corporation

General Offices and Laboratories
330 East Grand Avenue, Chicago 11, Illinois

Export Division
100 East 42nd Street, New York 17, New York

REPRESENTATIVES IN PRINCIPAL CITIES

PETROLEUM DERIVED CHEMICALS
VELSICOL
SERVING BASIC INDUSTRIES

Anti-slip LUDOX® adds safety to waxes ...makes your selling easier

Now you can add a feature that clinches wax sales easier and faster—it's Du Pont "Ludox" colloidal silica.

"Ludox" adds extra slip resistance to waxes and makes them highly desirable for all floors where feet are on the move. This safety feature appeals to stores, office buildings, schools, hospitals and institutions of all kinds. It's just what they need! And "Ludox" also makes wax harder with no sacrifice to the basic properties of high-quality wax—another selling point.

Ask your wax supplier about waxes made with "Ludox." Or, if you are a manufacturer, you'll be surprised how economical it is to use "Ludox." Write Du Pont, A-6312 Du Pont Building, Wilmington 98, Delaware.

HERE'S HOW "LUDOX" ADDS SLIP RESISTANCE:

"Ludox" is colloidal silica—tough, transparent particles of minute size. The pressure of a footstep forces the hard "Ludox" particles into the softer, larger wax particles. This action absorbs much of the foot's forward-moving energy . . . gives positive traction underfoot.

LUDOX®

COLLOIDAL SILICA

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Now! Aerosols *don't have to smell*

MGK AEROSOLS, WITH STROBANE* HAVE A PLEASANT ODOR

The light, clean odor of the new MGK aerosols, with Strobane, is pleasing, particularly to housewives. The odor is very short-lived. It does not penetrate or linger.

MGK AEROSOLS WITH STROBANE, LEAVE NO VISIBLE RESIDUE

Even when sprayed on windows or polished surfaces, MGK aerosols, with Strobane, leave no visible residue in the form of crystallized particles.

TEST FORMULATIONS NOW READY

MGK has been alert and thorough in their testing of the qualities and efficiency of Strobane. The results of these tests and the latest information on the use of Strobane in new MGK aerosol formulations is now available. Write for Bulletin No. S-27.

*Terpene Polychlorinates

McLAUGHLIN GORMLEY KING CO.
1715 S. E. Fifth Street • Minneapolis, Minnesota

Said the fly to the flea,
"This is killing me,
But it smells so good;
tell me why."

Said the flea,
"Be content,
It's an **ORBIS** scent;
What a beautiful
way to die."

If your product knocks 'em
dead, let **ORBIS** perfume it

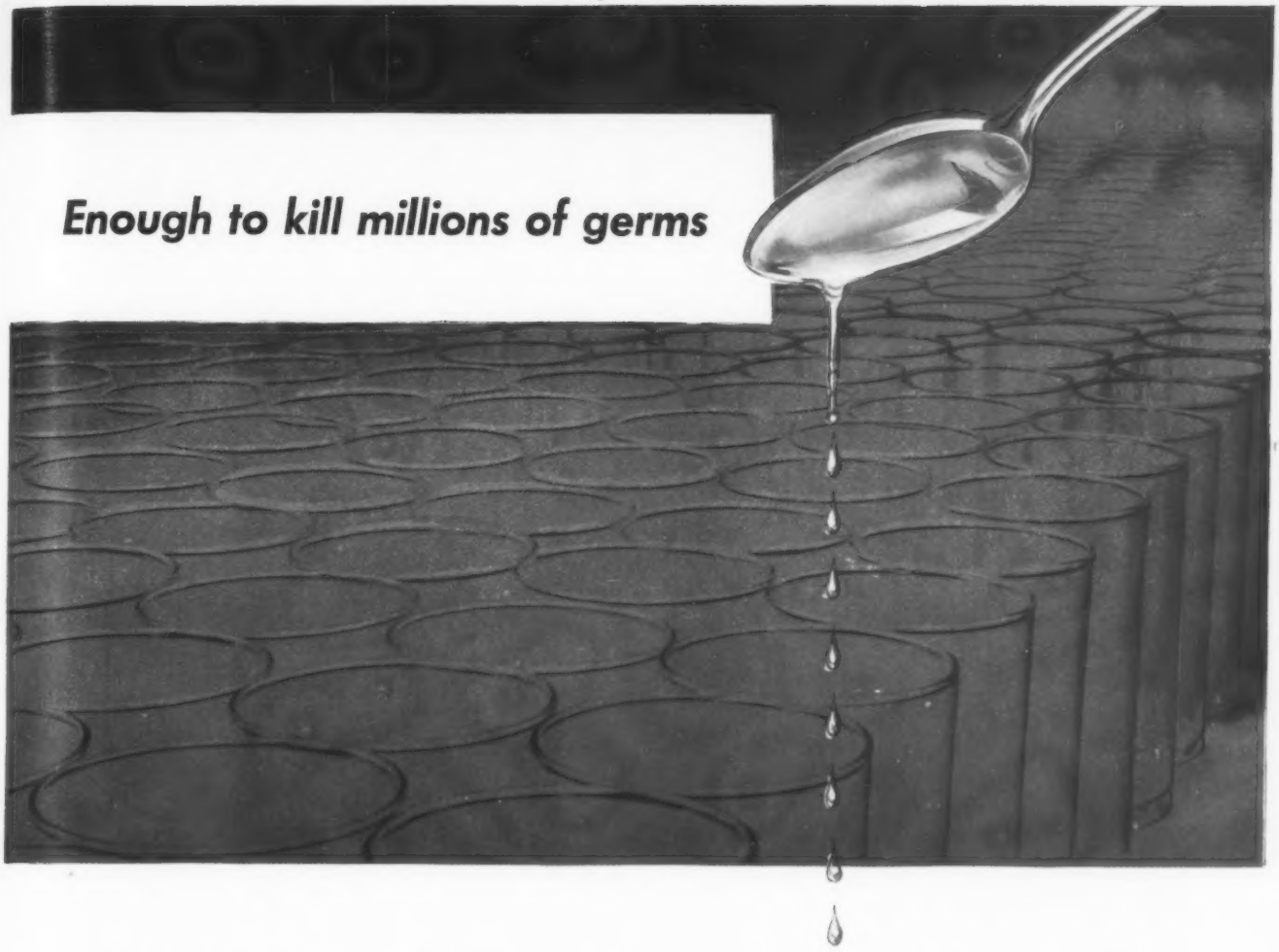
Use **ORBIS** odors
in your deodorizers, too

Right
under your nose

ORBIS Perfume Concentrates save both ways. Write today to

ORBIS
PRODUCTS
CORPORATION
601 W. 26th STREET
NEW YORK

NEW YORK
CHICAGO
BOSTON
MEMPHIS



HYAMINE 2389

. . . . . only one teaspoonful of HYAMINE 2389 (50%) is enough to kill millions of germs.

HYAMINE 2389, a quaternary ammonium bactericide, is *economical* because of its low cost and germicidal potency at high dilution. Its germ killing power under adverse inhibiting conditions is outstanding.

HYAMINE 2389 in your liquid or powder sanitizers will insure repeat orders from restaurants, hospitals, janitor services, barber and beauty shops, laundries, home owners, etc. Take advantage of the *non-irritating* and *odorless* qualities of HYAMINE 2389 and please your customers.

For sanitizer repeat sales—use HYAMINE in your formulations.

CHEMICALS FOR INDUSTRY

ROHM & HAAS COMPANY

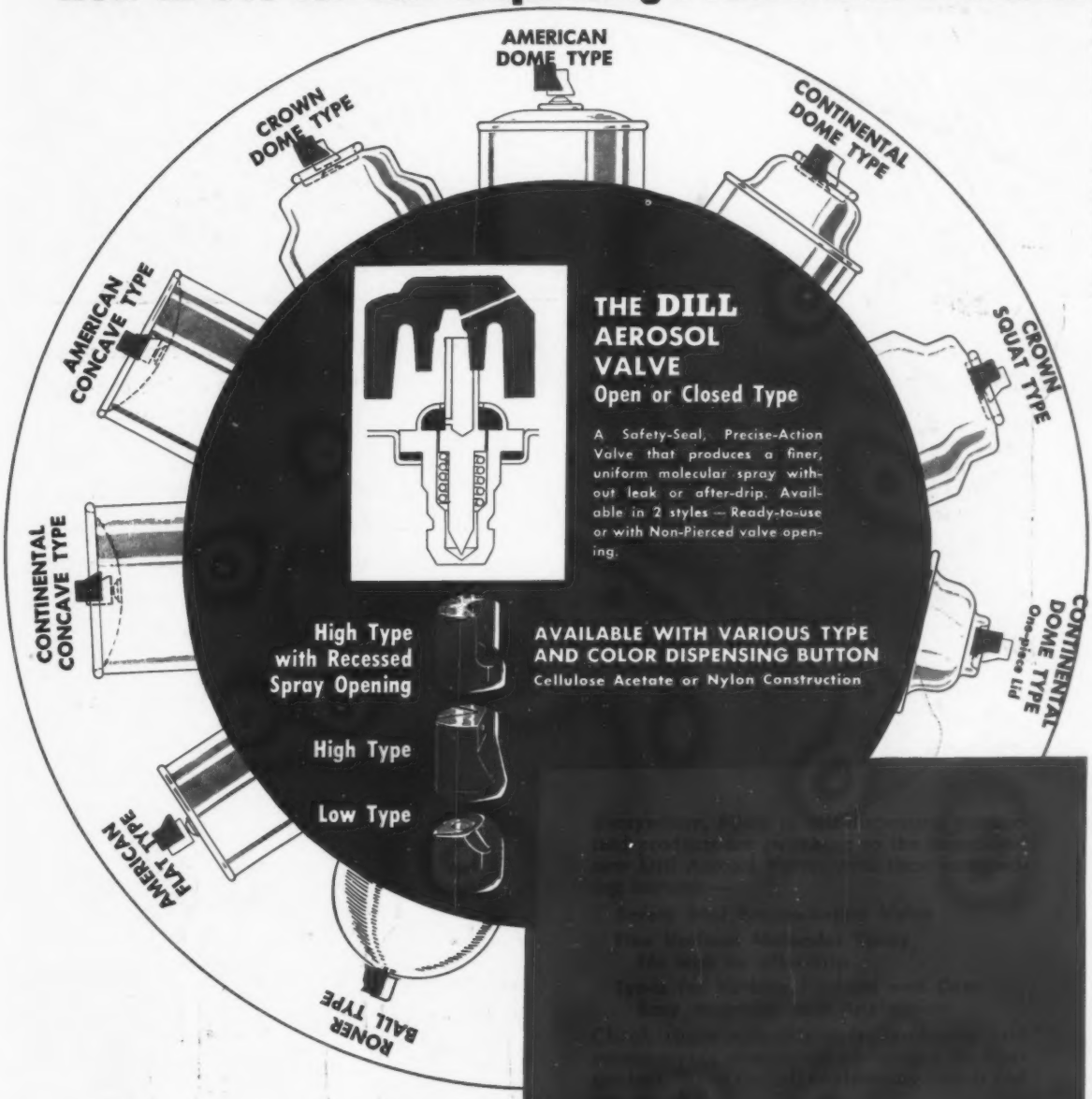
WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

HYAMINE is a trade name Reg. U.S. Pat. Off. and in principal foreign countries.

FITS ALL TYPE CAN LIDS

Now in Use for Self-Dispensing Pressurized Products



"TOPS" for Reliable Services and Sales Attraction

A PRODUCT OF 45 YEARS' EXPERIENCE IN THE DESIGN AND MANUFACTURE OF SAFETY SEAL VALVES

DILL AEROSOL VALVES

CROWN SPRA-TAINER® Does It Again!

Wins Top Awards

AT C.S.M.A. "AEROSOL FESTIVAL"

Henderize, Inc.
Sacramento, Cal.

Again in 1953 hundreds of entries competed in the package design contest at the annual "Aerosol Festival" of the Chemical Specialties Manufacturers Association in Washington, D. C. Again, SPRA-TAINER pressure packages walked away with top honors—including Grand Prize.

Look at these winners. Think! Wouldn't your product, too, win more sales in the distinctive Modern Design of SPRA-TAINER?

Centaur-Caldwell Div., Sterling Drug, Inc. Rahway, N. J.

Helena Rubinstein, Inc. New York, N. Y.

The Fuller Brush Co. Hartford, Conn.

Windsor Chemical Laboratories Philadelphia, Pa.

Thompson Chemicals Corp. Los Angeles, Cal.

Bridgeport Brass Co. Bridgeport, Conn.

Created by Crown to have exclusive "No Top Seam, No Side Seam" construction, SPRA-TAINER is the world's original and leading lightweight pressurized container . . . one of Crown's famous family of finest quality cans for the products of American industry. We'd be pleased to serve you.

CROWN CAN
DIVISION
CROWN CORK & SEAL COMPANY, INC.
One of America's Largest Can Manufacturers

PHILADELPHIA • CHICAGO • ORLANDO • BALTIMORE • NEW YORK • BOSTON • ST. LOUIS

A Polymer Emulsion designed *specifically* for the floor wax industry.

U2001 Ubatol is a modified vinyl polymer in a compatible dispersion system featuring fine particle size. (less than 0.03 micron.)

When U2001 Ubatol is used as the base around which you build your self-polishing formulations the result is improved gloss, durability, good leveling, soil and abrasion resistance. Such finishes have excellent water resistance yet are easily removed.

U2001 Ubatol has met the demand for "high polymer content" floor finishes for both household use and industrial maintenance.

UBS laboratory testing services are available to you in the application of this tested and proven base formulation.

UBS Reg. T.M.

UNION BAY STATE Chemical Co., Inc.

491 Main Street · Cambridge 42, Mass.

A multitude of products are sold today in the modern aerosol container. The efficiency, practicability, and appeal of this remarkable package have again and again been proven.

But with the free dispersion of product into the aerosol cloud, a formerly unnoticed objectionable odor is magnified many-fold, often into a real disadvantage. Cosmetics, paints, insecticides, waxes, can be effectively improved odor-wise for aerosol packaging.

The chemists of van Ameringen-Haebler, Inc. have had long and successful experience in the improvement of many products. They can help you turn scent into a real selling force.

MANUFACTURERS AND CREATORS OF THE FINEST FLAVORS AND FRAGRANCE MATERIALS

van Ameringen · Haebler, inc.

521 WEST 57th STREET NEW YORK 19, N. Y.

An Invitation to the . . .

31st Annual Convention and Trade Show
National Sanitary Supply Association

March 21, 22, 23, 24

Conrad Hilton Hotel
Chicago, Ill.

The Officers and Directors of your National Sanitary Supply Association join with me in assuring you of another bigger and better National Convention and Trade Show at the Conrad Hilton Hotel in Chicago, March 21, 22, 23, 24, 1954.

Each year your convention and trade show has grown in size and educational opportunities. This year exhibitors are going all out to bring you the newest in merchandise as well as advanced plans in better merchandising methods.

This year's convention will again stress the "Clinic Approach" to trade show technique. Each exhibitor will have at the disposal of distributors, skilled engineers and technicians, interested primarily in showing the distributor how his product can best serve the consumers' cleaning, maintenance and sanitation problems. By visiting each exhibitor, distributors can be informed of the latest developments and thus be better qualified to serve the best interest of their customers.

You can be proud of the work your Association is performing in your behalf and we look forward to greeting you again in Chicago.

David L. Ginsburg
President,
National Sanitary Supply Association, Inc.

Consistent uniformity from order to order is yours when you specify GIVAUDAN

Complete control over every step in manufacture or processing... from large scale raw material purchases to delivery of finished product... enables Givaudan to produce materials of unvarying uniformity from batch to batch.

If you have experienced difficulty in securing the consistently high degree of uniformity you desire, you may find a practical solution by standardizing on Givaudan as your source for fragrance requirements. Our staff will welcome the opportunity of discussing your requirements or problems with you without obligation.

GIVAUDAN

Better perfume materials through constant research and creative ability

GIVAUDAN - DELAWANNA, INC.
330 West 42nd Street · New York 36, N.Y.

Branches: Philadelphia · Boston · Cincinnati · Detroit
Chicago · Seattle · Los Angeles · Toronto

For Your Compounds
and Formulations

The Best is Cheapest

in the long run!

GENUINE

Roccal

Reg. U. S. Pat. Off. and Canada

SANITIZING AGENT

THE GERMICIDE OF 1,000 USES

NOW OFFERED TO MANUFACTURERS IN 50% CONCENTRATION

Quaternaries are being used more and more as germicides and fungicides in widely diversified fields:

- TAVERNS
- MILK PRODUCERS
- POULTRY FARMS
- EGG BREAKING AND DRYING PLANTS
- REFRIGERATION PLANTS
- FROZEN FOOD PACKERS
- BAKERIES
- BATHING PLACES
- BARBER SHOPS
- HOSPITALS
- LAUNDRIES

FOR YOUR PROTECTION

Look for our laboratory Control Number

In proper dilutions ROCCAL IS:

POTENT — TASTELESS
STABLE — ODORLESS
NON-POISONOUS — NON-CORROSIVE
NON-IRRITATING TO SKIN

Sample and literature on request.

Sterwin Chemicals Inc.

SUBSIDIARY OF STERLING DRUG INC.

1450 BROADWAY, NEW YORK 18, N. Y.

OFFICES IN PRINCIPAL CITIES THROUGHOUT THE UNITED STATES




HANDBOOK OF PEST CONTROL


by Arnold Mallis

THE new HANDBOOK of PEST CONTROL by Arnold Mallis, a completely revised edition, will be off the press shortly and available for distribution.

▲ The new edition will contain more than 200 illustrations—a much larger and more complete volume than the original HANDBOOK by Mallis, published in 1945 and out of print since 1948.

▲ This newest pest control reference volume deals primarily with household and industrial pests, insects, rodents, etc., their habits, identification, and latest methods of control. It is the most complete work of its kind ever offered in a single volume.

▲ Those who have used the original HANDBOOK by Mallis undoubtedly will want this new, up-to-date volume, a standard reference book which should be in the library of every pest control operator, insecticide manufacturer and marketer, entomologist, chemist and others interested in modern materials and methods of pest control.

▲ The new HANDBOOK of PEST CONTROL by Mallis will be 6″ x 9″ with a sturdy binding in best grade green cloth, gold stamped. Advance orders, entered now, will be shipped from the first lot of books to come from the bindery.

TABLE OF CONTENTS

rats and mice
silverfish
springtails
cockroaches
crickets
earwigs
termites
dry rot fungi
wood-, book-boring and related beetles
psocids
bedbugs and other bugs
clothes moths
household fumigation
hide and carpet beetles
ants
bees and wasps
stored product pests
spider or ptinid beetles
lice
fleas
flies and mosquitos
spiders
mites
ticks
miscellaneous household pests and chemicals used in their control


MAC NAIR-DORLAND COMPANY
254 West 31st St., New York 1, N. Y.

As soon as available, please ship me postpaid..... copies of HANDBOOK of PEST CONTROL by Arnold Mallis for which is enclosed check for.....

Name .....

Firm .....

Address .....

City & State .....

It is understood that if I find the book not what I want that I can return it in good condition within 10 days and the full purchase price will be refunded.

Postpaid in U. S. A._____$9.25
Postpaid elsewhere_____$9.75

(Add 3% Sales tax if in New York City)

Check must accompany orders. Books returned in good condition within 10 days to publisher entitled to full refund of purchase price. Use order blank herewith. (Please print legibly.)

Published by

MAC NAIR - DORLAND COMPANY

254 WEST 31st ST. NEW YORK 1, N. Y.

Cost Survey Sells Sanitary Supplies

By Phil Lance

A new approach to the sale of sanitary supplies and equipment has paid off handsomely for the young and aggressive sanitary supply firm of Galer & Hults, Inc., Philadelphia. And this approach covers the promotion of cost control and efficiency in the purchase and use of sanitary supplies.

"We promote efficiency and cost control when selling supplies to our customers and prospects," says "Hap" E. Galer, president. "This approach immediately interests our prospects in the products we are selling and holds their attention. We leave the actual discussion of the materials employed in the process to the last, because we have found that the promotion of individual products is the theme that others are always employing. And in an effort to get a renewed interest in sanitary supplies we hit a point that we know is of great importance to purchasing agents."

Based on his own studies and estimates upon which the industry is in general agreement, Mr. Galer knows that of the total expenditure for sanitary maintenance, 90 percent goes for labor and the balance is spent on cleaning materials and devices. Because wages for labor represent such a large share of the sanitation dollar, savings that can be effected in labor through the purchase of the right sanitary supplies and equipment are stressed to customers and prospective buyers of Galer & Hults. This labor to materials ratio is brought out strongly to prospects when they are first contacted, and since buyers are generally aware of their costs, they are anxious to learn about materials which will cut down on the 90 percent.

A free survey is made of the sanitary supply needs of every prospect who the firm believes may become a customer. When a salesman makes his initial contact with a prospect he explains the free survey. The salesman explains that he wishes to make a survey of the requirements of the plant or firm and give the officials in charge a complete, typewritten report. The report is made without obligation and is presented to the executives to examine when they are considering plant maintenance.

The report covers every cleaning and maintenance requirement of that particular plant or institution. It includes a list of the requirements for floor maintenance; suggests correct inventory of cleaning room supplies, and also gives a complete detailed analysis of the supplies required for monthly use and their applications.

This survey also makes recommendations as to the best types of materials to use for proper floor maintenance and wash room sanitation; the amount of the materials to be consumed; when they should be applied and all other important data and information about them. This report is so complete that a

Top right: Mr. Galer files away merchandise, literature and samples in drawer where salesmen can refer to it prior to making a sales call.

Second from top: Salesman shows actual merchandise to purchasing agent. Visual selling beats catalog competition.

Third photo: Salesman shows films dealing with maintenance methods to executive and persons in charge of sanitation. This helps sell management on products handled by Galer & Hults, Inc.

Fourth from top: Purchasing agent keeps perpetual inventory file to determine sales and stocks of merchandise.

Bottom: "Hap" Galer, president of Galer & Hults.

plant executive can follow it minutely in order to arrive at the best possible cleanliness and plant sanitation program.

"Naturally, when we give this survey to a customer it does not always mean that we will get their business," says Mr. Galer, "but experience has shown us that just as soon as that customer becomes interested in purchasing any janitorial supplies and equipment, we are contacted. And as a result, we have been able to sell 100 percent of those prospects for whom we have made up a survey. We have found that when contacting new plants or prospects, our free survey idea is an excellent way of "breaking in." Very often the purchasing agent or other individual in charge of plant maintenance and sanitation may not be particularly interested in discussing their needs or problems at that time. But when they have our survey handy they will refer to it when buying and generally they contact us. Having made such a perfect sales record with firms for which we have made these surveys, we feel that this is one of our best methods of developing new customers."

"Following the written survey, the salesman contacts the prospect and will make a second detailed inspection of the plant or institution where the material or sanitation supplies are to be used. Always keeping in mind the cost factor and necessary efficiency, the salesman can present many good ideas and suggestions which eventually may result in sales.

"As an example, explains Mr. Galer, "we tell some of our prospects that they can save on the cost of paper towels and time by placing the paper towel cabinet about six inches above the usual eye level. When people who have washed their hands notice the height of the towel cabinet they shake excess water off their hands into the wash basin. Then, when they wipe their hands fewer paper towels are required. This results in substantial paper savings."

At the same time, the general lay-out of supplies and equipment for washrooms and other sites are explained to customers. When equipment is efficiently laid out in a washroom it takes less time for employees to use the facilities. Simultaneously, the most suitable type of supplies have to be explained to prospects. In some cases, bars of soap will do, while in others, liquid soap dispensers are best. Naturally, those supplies best suited to the installation, from the standpoint of efficiency and cost economy are highlighted to the prospect. This helps to sell the prospect on the firm of Galer & Hults as suppliers of their sanitary needs, as it identifies them as experts in sanitation supply requirements.

Cost Control

BECAUSE purchasing agents and top management are so interested in cost control, Galer & Hults makes it a point to stress this factor in talking to prospects. One of the main points emphasized is the use of better types of products and supplies.

"We tell our customers that as long as they are expending the time and labor to try to do a good cleaning job, they ought to do it with the best supplies available," Mr. Galer explains. "Labor representing about 90 percent of the cleaning cost, the difference in supplies is so small that the customer would profit by using the best materials available. Inferior products give inferior results. Inasmuch as the difference between superior products and others is so slight, it is to the customer's best advantage and savings to use the best products obtainable. For this reason, we stock all national brands of products because these are already well known to our customers and have proven themselves in actual use."

In demonstrating cost control to customers, Galer & Hults has its salesman work with customer's maintenance crews to instruct them in the correct use of products to obtain the maximum in sanitation and appearance. Maintenance personnel are shown the correct methods of floor care and how to perform other maintenance duties in plants, service stations, institutions, etc. At the same time the equipment being used is also checked to make sure that maintenance men are working with the right tools. On-location work with a customer's maintenance staff has helped Galer & Hults in building their sales.

See Purchasing Agents Last

TOP management and personnel in charge of sanitation are called on by salesmen before they see the purchasing agent. In fact, the salesman sees the purchasing agent last. By selling top management or the person in charge of sanitation through working with maintenance personnel the way is paved to have the purchasing agent place a trial order with the salesman.

The salesmen make arrangements to have management representatives and maintenance personnel meet together at the office of Galer & Hults. At this meeting, salesmen show films of correct sanitation and maintenance. At the same time literature and other sample material is given out. When the people attending these meetings have been sold on Galer & Hults, Inc., a salesman contacts the purchasing agent. When he does, he is almost assured of receiving a trial order.

"We have not had any complaints from purchasing agents that we have gone-over-their-heads," Mr. Galer says. "We simply let them know that we have only contacted top management and the personnel in charge of sanitation for the plant because we want to be able to sell them first on our means and methods of handling their sanitary supply requirements. When the purchasing agent knows that his top management has already been sold on our products, he places orders with us without any hesitation."

Usually the salesman tries to sell the purchasing agent a trial order of maintenance products. Next he contacts the individuals who are going to use these supplies in

an effort to explain to them why they have been obtained for their use by the firm.

In all cases, the users—the sanitation crew, janitor or the maintenance men, are told why their company has purchased these supplies and are shown the best ways to use them. When sanitation supplies are employed in the washroom their use is explained to the employees who will be applying them. As an illustration, Mr. Galer points out that he had salesmen on three shifts in one plant to explain to various personnel the use of different kinds of equipment installed in the room.

"We had three shifts of salesmen in the washroom in this plant," explains Mr. Galer, "and every time an employee entered the washroom they were given an explanation of the use of the different products. This brought about a better understanding of the supplies on the parts of the employees, it improved employee morale and also pleased plant officials. The latter realized that we were trying to bring out to their employees, that their firm was trying to do everything possible to give them the finest in health and sanitation."

A Young Firm

THE firm of Galer & Hults was started in 1940 by Harold E. Galer and his partner, Fred Hults. Both decided to form this organization after they had spent years selling paper supplies, for a nationally known manufacturer. After their first year in operation, with Galer as president of the firm, they decided to add a complete line of washroom and sanitary supplies to their paper line, in order to round out a complete sales operation.

Between 1944-46, Hap Galer was in the U. S. Navy and his father, Harold E. Galer, operated the business until his return. It was then incorporated and employees were offered an opportunity to purchase stock in the company. Today, over 50 percent of the personnel of Galer & Hults have purchased stock in the firm. This

Automobile (left foreground) and refrigerator, on platform in rear, were among the prizes won in a recent sales contest by Galer & Hults salesmen. Shown (left to right) in the photo are: George Meares, John Sammon, William Snelling, R. A. Torchiana, H. E. Galer, Jr., Robert Eichman, Harry Gorfine, Phil Scanlan, George Niswander, A. N. Eccleston, Francis Feeney, H. G. Hamilton, and Robert Black.

Center photo shows the Galer & Hultz exhibit during the Plant Maintenance Show in Philadelphia.

Bottom photo is of Dan Palma, center, a Galer and Hults salesmen, who is showing the results of using the correct dishwashing compound.

is only part of young Galer's idea of making his organization a family business.

"At the end of every year," says Galer, "we have a profit sharing plan for all of our employees. This is based on the positions held in our company and length of service, and is an effort on our part to make each individual feel he is a partner in the business. We believe that when employees feel that they are a part of the firm for which they are working, they will apply themselves more diligently to their jobs. And the active and continued growth of our organization shows us that we are on the right track."

The firm employs 13 salesmen who act as their own employers. Their weekly income is based on a percentage of the gross profit of the business which has been brought in by them. Thus, their income is based on the sales they have completed and this makes the salesmen feel that they are working for themselves and moves them to greater sales activity.

A one-hour product knowledge meeting is held every Monday morning. Whenever possible, representatives of the manufacturers with whom they deal, address these meetings. These gatherings help to acquaint the salesmen with new products that are coming out, stimulate their interest in selling products in which the firm specializes and generally helps to improve employee morale.

As an additional incentive to inspire sales, Galer & Hults regularly holds contests for various products. Young Mr. Galer points out that his firm has no fewer than 12 contests a year. And he has found that these always tend to inspire his salesmen to greater efforts.

"We tie in on a cooperative basis with any manufacturer who wishes to run a contest," says Mr. Galer. "In addition, we also run our own contests from time to time to stimulate activity. The combination of these factors has helped to promote sales within our own organization and also has helped to improve our employees' morale. As a result, our employee turnover is very negligible. And this has been found to be most advantageous to the growth of our organization."

Galer & Hults salesmen attend a conference put on by one of their manufacturers to discuss new types of products.

Several months ago when a national manufacturer offered such prizes as an automobile, refrigerator, television, and other merchandise to the salesmen making the top sales in the country, Galer & Hults men took the first three prizes in this contest. They have also won top prizes in other sales contests. Such aggressiveness on the part of a young firm, shows the executive ability and management which has been employed in promoting its name, products, and reputation, to its customers.

"We are in the midst of one of the greatest development areas in the country," declares Mr. Galer. "In nearby Delaware Valley new plants, companies and organizations are constantly cropping up. We are making every effort to contact them and sell them sanitary supplies. By using our methods of efficiency and cost control and the free survey, we have been able to introduce ourselves to many newcomers in our area, and this has led to profitable contacts for us."

Sales Specialists

THE firm has set up four departments which cover: 1. Service stations and automotive dealers; 2. Hospitals and similar institutions; 3. Restaurants and food handling plants; 4. General industry. The salesmen have been assigned to the divisions to which they are best suited in order to make the most of their abilities and sales techniques.

Any of the salesmen who have had previous experience with either service stations or any part of the automotive field, are placed in the sales division covering those fields. The same idea is followed with those who have had hospital experience, etc. Thus, sales work has been departmentalized.

All kinds of helps are given to the salesmen. As an illustration, the firm has arranged a large filing cabinet section which contains liter-

(*Turn to Page* 161)

A clinical approach to the question of floor machines, their care and use is provided by this session of a large manufacturer of floor machines attended by G&H salesmen.

New House Fly Insectides

By W. A. Gersdorff, Norman Mitlin, and R. H. Nelson,
U. S. D. A., Agr. Res. Serv., Bureau of Entomology and Plant Quarantine

THREE organic phosphorus compounds have recently been reported to show promise as insecticides. Tests were made to determine their relative toxicities, with the house fly, *Musca domestica* L., as the test insect.

Materials. — The materials tested were Diazinon [O,O-diethyl O - (2-isopropyl-4-methyl-6-pyrimidinyl) thiophosphate], Bayer 21/199 [O,O-diethyl O-(3-chloro-4-methylumbelliferone) thiophosphate], and Bayer L 13/59 (a dialkyl phosphonate). All were of technical grade. The standard materials were pure parathion and pyrethrins containing 52 per cent of pyrethrin I and cinerin I.

Procedure.—Stock solutions of Diazinon, parathion, and pyrethrins were prepared in refined kerosene, but because of their lower solubility 20 per cent of dry acetone was used as an auxiliary solvent for 21/199 and L 13/59. This amount of acetone may raise mortalities slightly, but its effect does not appear to be so great in sprays containing parathion as in those containing pyrethrins, and it may be ignored in the comparison of materials of technical grade. After preliminary tests, sprays were prepared from the stock solutions with the same solvents at concentrations selected to cause a range of mortalities from high to low.

Knockdown and mortality of laboratory-reared house flies treated with these sprays were determined by the Campbell turntable method. Six replications were made with the sprays containing the phosphorus compounds, all of them being tested simultaneously on each population of flies. Conditions prevented the inclusion of tests with pyrethrins in the same series. However, to get an approximate estimation of the relative susceptibility of flies reared at about the same time and under the same conditions, another series of tests, in duplicate only, was made with parathion and pyrethrins. In both series approximately 95 flies were used in each test. The average age of flies in all populations was 2½ to 3½ days.

To evaluate relative toxicity and determine the precision of the estimates, the mortality data were subjected to probit analysis as described by Finney (1952).

Knockdown and Mortality. —The organic phosphorus sprays caused no, or negligible, knockdown of flies in 25 minutes, the pyrethrins sprays complete knockdown. The mortality data are summarized in table 1.

Evaluation of Relative Toxicity.—Regression lines were fitted graphically to the mortality data. In the first series the regression coefficients for the materials in the order given in table 1 were 5.34, 4.98, 4.58, and 5.38 probits per unit log concentration. The assumption that these lines are parallel is warranted, for when provisional lines were

(*Turn to Page* 159)

Table 1

Relative toxicity to house flies of certain organic phosphorus compounds in comparison with parathion and pyrethrins.

Material	Concentration	Mortality in 1 Day	LC 50	Toxicity Relative to— Parathion	Pyrethrins
	Mg. per dl.	Per cent	Mg. per dl.		
		Series 1 (6 replicates)			
Diazinon	17.8	88.4	11.01±0.39	0.509±0.026	31.0±1.8
	13.3	68.7			
	10.0	47.4			
	7.5	13.1			
21/199	40.0	99.0	16.34±0.60	0.343±0.018	20.9±1.2
	30.0	97.2			
	22.5	70.3			
	16.9	56.9			
	12.7	32.4			
L 13/59	133	88.3	76.3±2.8	0.0734±0.0038	4.48±0.26
	100	69.2			
	75.0	53.2			
	56.3	24.9			
Parathion	7.50	80.2	5.606±0.207	1.0	60.9±4.9
	5.63	45.6			
	4.22	25.7			
	3.16	9.6			
		Series 2 (2 replicates)			
Parathion	7.50	87.3	4.37±0.15	1.0	60.9±3.7
	5.63	72.9			
	4.22	45.9			
Pyrethrins	747	90.7	266.±12.	0.0164±0.0010	1.0
	374	71.6			
	187	30.0			

How the home economist can aid in

Marketing Chemical Specialties

IT has been said: "You can't fool a woman by pretending to be one!" It is a fact that women control the American pocketbook—Mrs. Housewife is a sort of glorified purchasing agent not only for the food and clothing for her family, but for household goods for the home, be it old or new, and even for the family car. Now isn't it logical to assume that having spent her husband's hard earned money for these things she wants the best she can buy for their upkeep? I'm thinking, of course, of household wax polishes. That's why the role of the home economist in the household wax products industry is an important one because it brings into focus the woman's viewpoint and develops it for all it is worth.

Let's go back a few years and picture a group of distinguished gentlemen gathered around a conference table deeply engrossed in planning the launching of a household wax product. True they didn't have long beards like the Smith Brothers but there may have been times when some of their ideas seemed as old-fashioned! They wanted to take the drudgery out of housekeeping tasks involving the use of wax products but somewhere along the line they were missing the boat. Why? Because they as men were "pretending to think like women" in deciding how certain household tasks were to be done when probably the majority of them had never held a dust cloth or a mop in their hands to help the little woman around the house. All the marketing and advertising plans in the world will not put your product across if Mrs. Housewife is not happy using it. And you know what I think happened?

One day when gathered around such a conference table, one fellow sounded off with: "My wife says that's a darned awkward way to go about waxing a floor." And another said: "My wife objects to the odor, to her it's unpleasant." And suddenly there it was—the woman's viewpoint!

From then on there were many steps in the right direction. One of the earliest I can remember was the sales manager's secretary coming around to the steno and billing sections with a series of little bottles for an "odor preference" test. Then the lab boys in their long coats coming down from their ivory tower with a request to try this, smell that, and so on. Later on, samples of household wax products were given to various women to try; a little test market was opened. Slowly but surely the idea developed until the woman's viewpoint in industry is recognized today as being most important—not only in the wax polish industry but in many others as well.

How Johnson Tests Wax

FROM here on I am going to tell you how we go about developing the woman's viewpoint. When a new household wax product has been developed or an improvement is contemplated for one already on the market, it is first given to the home economist and technicians to test in the model home working laboratory, or if it is a household floor finish, on various types of test floors installed for this purpose. If it proves to have merit, it is then given to a selected group of homemakers to test and evaluate. At various times our women's consultant panel is also used. If, when the reports are completed and carefully studied, the results indicate we have a potential new household wax product or an improvement in an old one, Marketing is so advised and plans to introduce it in a test market are put into effect. On the other hand, if the results are not satisfactory, the product goes back for reformulation.

At this point I'd like to backtrack a little and describe our model home to you. Many of you are familiar with the Johnson Wax buildings in Racine which were designed by Frank Lloyd Wright. Our model home, which is known as "The Causerie," is part of the Research Tower group completed three years ago. It consists of a combination living room and library, a dining area, an all-stainless steel kitchen, and a fully equipped utility room. There are cork and walnut floors in the living room, library and dining area; yellow inlaid linoleum in the kitchen, asphalt tile in the utility room. The walnut furniture was designed by Mr. Wright and of particular interest is the kidney-shaped dining table which has two large holes cut into the top to hold sunken copper bowls of greens. There are also claret and green leather chairs and a television set. The rooms are beautiful and spacious, having the atmosphere of a men's club and an elegant modern home at the same time. Not only are the floors, woodwork, furniture, kitchen and laundry equipment used for the testing of household wax and other related products, but the rooms are also used for meetings of the board of directors and management. Visitors to our model home can see for themselves the results of housekeeping with wax!

When "product in use" surveys are conducted in the field, the home economist works with and acts as liaison between research and marketing in the testing and evaluation of new household wax products; in the improvement of cur-

By Elmyra Konnak*
S. C. Johnson & Son, Inc.

rent ones; in the blind testing of various related products, and in test market surveys. Often we work independently; at other times we enlist the aid of or participate with outside survey agencies and testing laboratories.

Door Knocking Tricks

FIELD survey work naturally means direct contact with the consumer. Probably many of you at one time or another have participated in such survey work or read about it, so I am going to skip the detailed mechanics of determining where certain income groups are located in a town, the placing of samples far enough apart so women can't compare notes, etc. However, I have developed a few little door-knocking tricks which have proved helpful to me. If the morning milk is still on the porch, pick it up and when the lady of the house answers the door, hand it to her and say you are the new milkman! Of course, she knows you're not but when you do tell her what you want, she feels friendly towards you. Down in New Orleans they apparently have a "coffee" man too. When I handed the pound of coffee which was on the porch to the housewife, I remarked that I loved New Orleans coffee and she immediately insisted I accept it as a gift from her! The mail box can also be helpful. Look for the family name on it or remove the mail and check the name. Then, when the housewife answers your ring, say brightly: "Good morning, Mrs. Quackenbush, here's your mail." When she accepts it from you, she usually lets you come in at the same time.

Incidentally, we have found it is much easier for women survey workers to get into homes than it is for men, especially in metropolitan cities where people are suspicious of strangers. And door-knocking isn't all a bed of roses. As you can imagine, there have been plenty of doors slammed in my face! Then, of course, there are the inevitable "darling" babies, pre-school children in space helmets, two-gun bandits, barking dogs, not to mention parakeets which land on the top of your head and dig in! I'll never forget a "surprise" one precocious child gave me. She was a cute little girl who wanted to crawl on my lap and snuggle up, while I beamingly remarked that "children always take to me!" Then she wanted to whisper a secret to me and, clutching my head tightly in her arms, she screamed bloody murder right into my ear while her mother rocked with laughter and roared, "Isn't she cute?" I couldn't hear with that ear for an hour afterwards.

Miss Konnak makes an on-the-spot test with a floor wax in the all-stainless steel kitchen in "The Causerie", the model home maintained at the S. C. Johnson & Son research tower laboratories.

Market Surveys

NOW a little about "market surveys." This is actually follow-up work on the part of the home economist and technicians to find out what Mrs. Housewife thinks of a household wax "product in use" after she has paid her own hard-earned cash for it. Naturally, we get more value out of this type of survey as the housewife is likely to be much more critical of a product for which she has paid than for

*Paper presented before 40th annual meeting Chemical Specialties Manufacturers Assn., Washington, D. C., Dec. 8.

one given her "free." If any of you have participated in a market survey in metropolitan areas like New York City, you know how difficult it is to find Mrs. Housewife. Just try to get from the 300 block on 5th Avenue in Brooklyn to the 300 block on 4th Avenue without running into the 800 block, not to mention ravines, gullies and deadend streets. I traced down one address that turned out to be in the middle of the main runway at Idlewild Airport. But it's all in a day's work.

When you have found Mrs. Housewife and she has used your product, the interviewer asks her a series of prepared questions, worded in several ways to cover both a negative and a positive approach. These questionnaires are carefully planned with the home economist and are based completely on the woman's viewpoint. After the questionnaires are tabulated and the facts analyzed, the final report, along with other media, is used by Production and Marketing, or both, in determining future plans for the product.

How do you feel about statistics? I know a story about them that shows that while figures don't lie, you can lie with figures. For example: Up in northern Wisconsin in a logging camp there were 50 lumberjacks and two women cooks. The manager of the crew was required to prepare a daily report of all camp activities. When Saturday evening came there was quite a rip-snorting shindig during which many things happened. On Sunday when the manager filled in his report he wrote: "Last night 2% of the lumberjacks ran away with 50% of the women!" Just plain facts—all we want is facts.

In order to discuss housekeeping problems successfully with women, the home economist must be familiar with the use of the new household product. These would include appliances; glass and silver cleaners and polishes; shoe polishes; cellulose mops and sponges; wax applicators; dusting papers, mitts, and cloths; space deodorants; soaps, detergents, starches, bleaches—and hundreds of others. She cannot afford to be like a horse wearing blinders and know only her own household wax products; she must have an over-all knowledge of related products and their correct use in the home. This increases her prestige in the eyes of the housewife and strengthens statements she makes.

Application Techniques

WHEN a household wax product has been approved for sale, the home economist demonstrates proper application techniques for marketing and advertising personnel, including advertising agencies. Remember—the field and test market survey work, the testing in the model home working laboratory, on test floors and panels, in the homes of panel members and other under actual conditions of family life; drying times, odor improvements, etc., have all been completed.

Application methods have been tested and re-tested many, many times. Now is the time when the home economist projects the woman's viewpoint, the time when she says: "Gentlemen this is how to use the product for the best results." Demonstrations for television commercials are based on what is learned here and constant supervision is maintained at the point of shooting them. As label directions, advertising copy, consumer education literature and so on are prepared, the home economist and many others carefully check every word to be certain points agreed upon are clear. Because of limited space, label directions must be clear and concise. In television commercials, where time is most precious, only the most important uses of the product can be projected. It all amounts to careful planning and timing.

The women's consultant panel plays an important part in projecting the woman's viewpoint. Under the supervision of the home economist the panel is used for testing products and covers varied housekeeping problems involving wax. Presently the membership of this panel is just over a thousand, which we consider an ideal number to retain a warm, friendly touch. These women are selected from every state in the union and both metropolitan and rural districts. When a woman is invited to join the panel she is mailed a booklet explaining its operation and a classification data questionnaire. When she returns the questionnaire we know if she rents or owns her home; how many children she has and their ages; if there is a family car and who cares for it; what brands of household wax and related products she prefers for floors, furniture, woodwork, automobile, silver, windows, laundry, and so on. I'm happy to say we have a wonderful group of enthusiastic and cooperative homemakers. They love the fun of "blind" product testing, and generally being "critical critics," they express frank, honest opinions. Here again the questionnaires are planned to accent the woman's viewpoint. These women serve without pay—their only reward being the generous free samples they receive to test, and the thrill of seeing a product which they had a part in evaluating appear on the market. Once a year, at Christmas time, they receive a small surprise gift as a "thank you" for their valuable cooperation.

Handling Complaints

ONE of the most interesting and valuable roles the home economist plays in the household wax products industry is in the handling of complaints. Does it surprise you that the Johnson Company has complaints? Of course, we do. It is the spark that motivates improvement of wax products already on the market and the development of new ones. Not only must the home economist have a working knowledge of every product but she must be able to show the homemaker tactfully and graciously what she did wrong. In the majority of cases the remedy is usually very simple, and in nine

(*Turn to Page* 157)

Aerosol Formulators:

Save up to 3c per can
and boost knock-down
with LETHANE

You can have *fast knock-down* for your Aerosols at a saving of up to 3 cents for *every can you market* to the retail consumer. Now is the time to consider LETHANE 384 for that speedy knock-down you want in your 1954 Aerosols.

LETHANE is the most efficient knock-down agent you can buy—thoroughly proved by experience. Yet the cost of putting it into your product is low. Check with us on how you can reduce cost and improve the performance of your aerosols with LETHANE. Call your nearest Rohm & Haas office, or write direct today.

LETHANE is a trademark, Reg. U.S. Pat. Off. and in principal foreign countries.

Regional Sales Offices
NEW YORK 1, NEW YORK, 350 FIFTH AVENUE, LONGACRE 3-4155
CHICAGO 1, ILLINOIS, 222 N. MICHIGAN AVENUE, FRANKLIN 2-6172
KANSAS CITY 6, MISSOURI, 1221 BALTIMORE AVENUE, VICTOR 6850
SAN FRANCISCO 5, CALIFORNIA, 25 BEALE STREET, DOUGLAS 2-6664
LOS ANGELES 36, CALIFORNIA, 5657 WILSHIRE BOULEVARD, WEBSTER 1-1491
TORONTO 1, ONTARIO, ROHM & HAAS COMPANY OF CANADA, LTD., 511 TERMINAL WAREHOUSE BUILDING, EMPIRE 8-8052

CHEMICALS FOR INDUSTRY

ROHM & HAAS COMPANY
WASHINGTON SQUARE, PHILADELPHIA 5, PA.
Representatives in principal foreign countries

DIATOMITE . . .

as an abrasive for cleaners and polishes for automobiles

By L. E. Weymouth and P. A. Martinson*
Johns-Manville Corp.

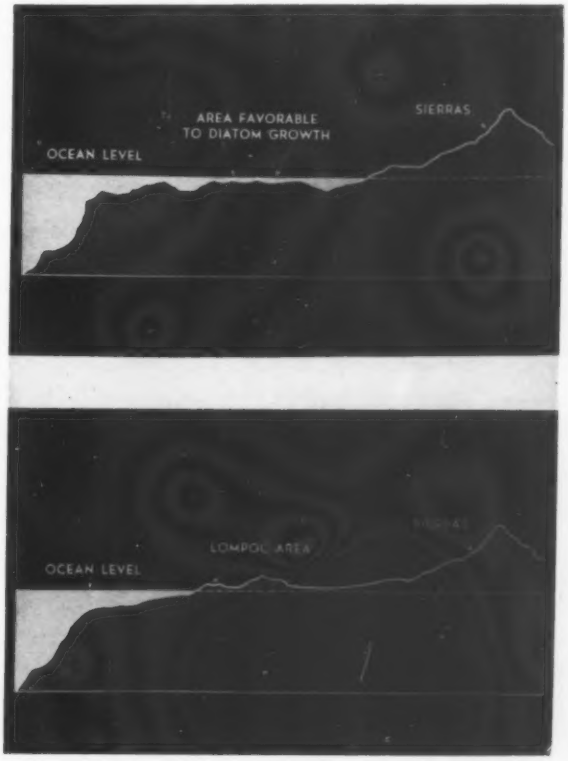
THE use of diatomite as a polish abrasive is one of its oldest applications, dating back approximately a hundred years to the earliest days of the diatomite industry. Advantages were recognized long before the advent of the automobile, and some limited use had been established especially in the field of silver polishes. Application in automobile cleaners and polishes and the present wide use in this field is a logical development from earlier experience. The special aptitude of diatomite for cleaner and polish use is because of the nature and unique properties of the diatomaceous particles, which provide the gentle abrasiveness required, combined with minimum wearing down of the polished surface. Although of the hardness of opaline silica, the individual particles have an intricate microscopic structure which provides effective polishing action with no visible scratching even with some of the softer metals.

Diatomite is the name applied to the fossil remains of tiny aquatic plants known as diatoms. These minute organisms are distributed widely in nature, growing wherever conditions of light, moisture and food supply are favorable. Each tiny plant is enclosed in a siliceous envelope. When the organism dies, it sinks to the ocean floor or lake bottom where eventually the organic matter is decomposed. Thus there is formed a deposit of the siliceous envelopes or skeletons in which the silica is in the amorphous or opaline state and fashioned in delicate and intricate patterns which give diatomite its microporous structure. During the Miocene period especially, diatoms grew in great profusion and the most important deposits being worked today were formed during that period. Other deposits are more recent and still others are in the process of forma-

*Paper presented at the 40th Annual Meeting, Chemical Specialties Manufacturers Association, Washington, D. C., Dec. 7, 1953.

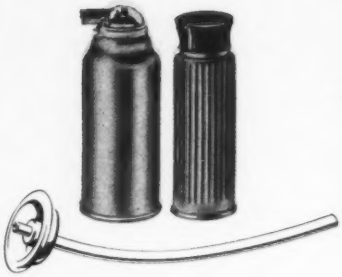
Figure 1. Location of Johns-Manville Celite deposit near Lompoc, California.

Figure 2 (top). Cross section of coastal area during period of formation of diatomite deposits.
Figure 3 (bottom). Cross section of coastal area after elevation of diatomite deposits.

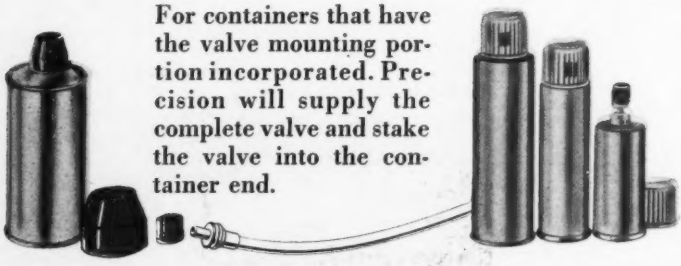


Aerosol Valve by Precision

Complete assembled cup type valve for any one inch opening aerosol container. For all aerosol products. Protective domes offered in various colors.

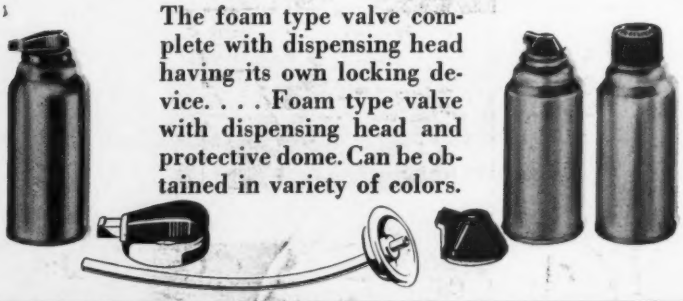


Offered to those who prefer to use their own button design for aerosols or their own dispensing head for foam products.



For containers that have the valve mounting portion incorporated. Precision will supply the complete valve and stake the valve into the container end.

Glass container aerosol valve, complete with button and protective dome.



The foam type valve complete with dispensing head having its own locking device. . . . Foam type valve with dispensing head and protective dome. Can be obtained in variety of colors.

[redacted] has the answer to your aerosol program regardless of product, container, or filling method.

We invite your inquiry to enable our staff of aerosol valve technicians to work cooperatively in satisfying your valve requirements.

PRECISION

Precision Valve Corporation

700 NEPPERHAN AVENUE • YONKERS 3, NEW YORK

tion at the present time.

Although diatomaceous deposits occur in many parts of the world, in only a few locations are they of a size and type and purity and sufficiently accessible to be of commercial value. In the United States deposits being operated today are all in the western states, mainly in California, Oregon, Washington and Nevada. Figure 1 shows the location of the Johns-Manville "Celite" deposit near Lompoc, in Santa Barbara County, California, a few miles from the Pacific Ocean. Figure 2 shows a cross section of the coastal area as it is believed to have existed during the period of formation of the great marine deposits. Much of what is now the California coast line was then below sea level and the Lompoc area probably was part of a shallow bay, so protected that conditions were favorable for the quiet deposition of sediments.

Formation of the Lompoc deposit continued over a long period and total depth of diatomaceous sediments is about 1400 feet. As the Miocene period drew to a close, diatom growth diminished and non-diatomaceous sediments formed a protective cap above the deposit. During the subsequent period, the ocean floor was elevated and profound changes occurred in the land masses (Figure 3). The beds of fossilized diatoms were folded into a series of trough- and arch-like strata. Hills and canyons were formed by erosion of the land mass and centuries of rains percolated through the diatom beds and produced the highly purifying effect of many washings. Some of the overlying strata were washed away, but most of the beds were preserved. Since the discovery of this deposit in about 1890, an important industry has been developed, based on the industrial applications of this unique and useful mineral.

Figure 4. View of Celite quarry operations.

A view of some of the Celite quarry operations is shown in Figure 4. Removal of large amounts of overburden is necessary in order to expose the useful strata. Power-driven shovels dig the crude diatomite and load it into trucks. Each truck carries its load of crude to one of a series of vertical storage shafts which are located at strategic points in the formation above a system of tunnels. Tunnel system terminates at central storage bins close to the mills and from these bins the desired crudes are distributed to the various milling systems. Figure 5 shows a view of the Celite plant. Crude from the quarries contains a considerable amount of moisture as well as some contamination with chert and crystalline impurities which are removed in the processing. The crushed crude is milled and dried simultaneously in a cur-

Figure 5. View of Celite plant.

FLORASYNTH SPECIALS

AIR DEODORIZERS

MINT BOUQUET No. 3121
APPLE BLOSSOM No. 3122
SWEET PEA No. 3123
WISTARIA No. 3124
GARDENIA No. 3125

IMITATION CITRONELLA

PARA BLOCKS

OIL APPLE BLOSSOM No. 4314
OIL LILAC No. 4315
OIL NARCISSUS No. 4316
OIL ROSE No. 4317
PINE BOUQUET No. 4318

Florasynth Research Laboratories are always at your service for the development of more practical and quality-improving materials for your production requirements.

FLORASYNTH OFFERS AN EXTENSIVE LINE OF HIGHLY EFFECTIVE PERFUME BOUQUETS, NEUTRALIZERS, AND DEODORANTS FOR YOUR INSECTICIDES . . . AS WELL AS FOR MANY OTHER INDUSTRIAL USES.

Catalog and Samples Furnished Upon Request

TRADE PURITY FLORASYNTH UNIFORMITY MARK

Florasynth LABORATORIES, INC.

CHICAGO 6 • NEW YORK 62 • LOS ANGELES 21

DALLAS - CINCINNATI 2 - DETROIT 2 - MEMPHIS 1 - NEW ORLEANS 12 - ST. LOUIS 2 - SAN BERNARDINO - SAN FRANCISCO

Florasynth Labs. - (Canada Ltd.) — Montreal - Toronto - Vancouver - Winnipeg — Productos Y Laboratorias Florasynth, S. A. Mexico 11, D. F.

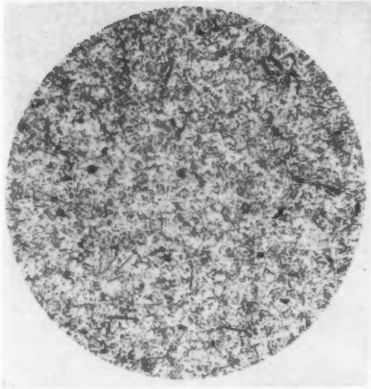


Figure 6. Natural air floated fines. Celite Snow Floss 300 X.

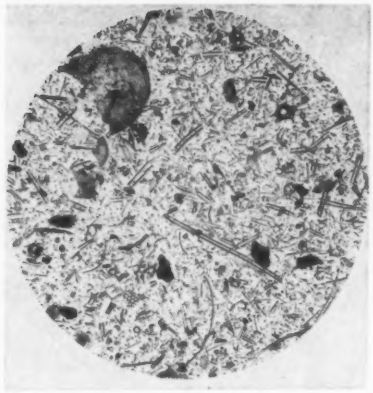


Figure 7. Natural milled diatomite. 300 X.

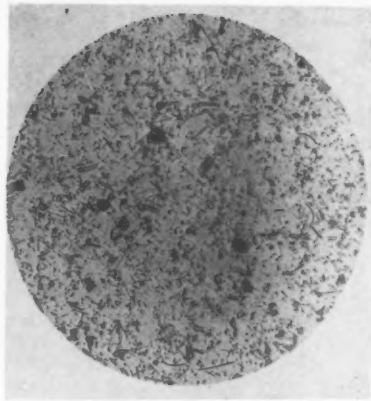
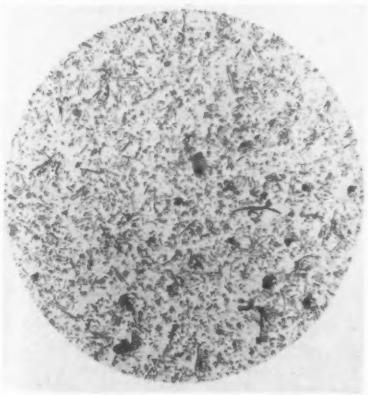


Figure 8. Straight calcined air floated fines. Celite 315 300 X.

rent of heated air in a fan system designed to separate the individual diatom particles with minimum breakdown of diatom structure. The main portion of the milled, dried diatomite is separated from the air suspension in a cyclone collector and the air-floated fines not removed in the cyclone are separated subsequently from the air suspension in a fabric dust collector or "baghouse." After reprocessing through a classification system for removal of traces of grit, these air-floated fines are collected and packaged for use as polish abrasive and for many other important applications.

The natural air-floated fines consist of small diatom fragments of very fine particle size, 60 per cent being of 2 micron size and smaller, with only a trace coarser than 20 microns. Photomicrograph of this grade is shown in Figure 6. This material is the most widely used of the diatomite polish grades.

Figure 9. Flux calcined air floated fines. Celite Super Floss 300 X.



The character of the main portion of milled, dried diatomite from the cyclone collectors is shown in Figure 7, which shows a photomicrograph of this grade. A large proportion of this material is further processed by calcination in large rotary kilns, with or without the addition of chemicals for fluxing. The air floated fines fractions from the calcined products also are used as polish abrasive where the requirement is for more aggressive polishing action. The calcined grades normally are coarser as well as of greater hardness than the natural powders and while supplying the more aggressive polishing action required for many purposes, also cause increased wear of the polished surface and visible scratching of some materials.

The straight-calcined air-floated fines are of pink color due to oxidation of the iron compounds always present in at least a small amount in the purest natural diatomite Figure 8 shows a photomicrograph of this grade, showing the coarser particle size as compared to the natural air-floated fines. Calcination has the effect of moderately increasing abrasiveness as compared to natural powder of the same particle size. Calcination also has the effect of transforming a small proportion of the amorphous or opaline silica to a slightly harder crystalline cristobalite of very fine crystallite size.

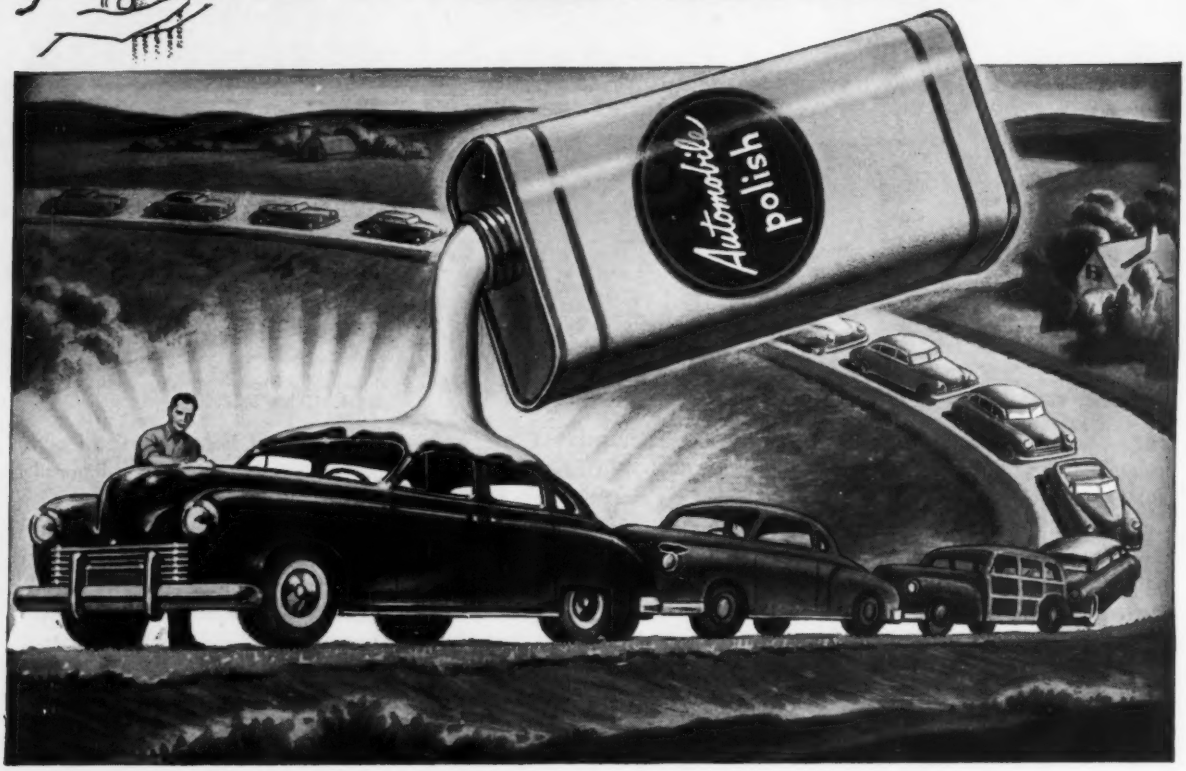
Flux-calcined, air-floated fines normally are of white color due to reaction of the iron compounds with alkaline flux and silica to form white products. The regular flux-calcined air-floated fines are somewhat coarser than the straight-calcined fines and are more abrasive. Transformation of the opaline silica crystalline cristobalite is also con-

Table 1

PHYSICAL PROPERTIES OF CELITE POLISH ABRASIVES

	NATURAL AIR FLOATED FINES	STRAIGHT CALCINED AIR FLOATED FINES	FLUX CALCINED AIR FLOATED FINES
CELITE GRADE	SNOW FLOSS	CELITE 315	SUPER FLOSS
COLOR	LIGHT GRAY	PINK	WHITE
LOOSE BULK DENSITY lb/cu ft	8.0	8.5	9.0
SPECIFIC GRAVITY	2.00	2.15	2.30
PARTICLE SIZE			
20 - 6 microns	10	20	20
6 - 2 microns	30	60	70
< 2 microns	60	20	10
ABRASION NUMBER	70	300	600

Celite Adds Delicate Abrasiveness . . .



Putting a "Soft" shine in polishes

TO PRODUCE A POLISH that is scratch-free—yet contains exceptional cleaning powers—most leading manufacturers of fine polishes use one of the Celite* Mineral Fillers as a standard ingredient. This use of Celite Fillers is based on their delicate non-scratching abrasive action—a property that derives from their porous, thin-walled cellular structure. It is one of many unusual physical characteristics that adapt these diatomaceous silica powders to numerous industrial uses.

THESE CELITE PROPERTIES BENEFIT MANY TYPES OF PRODUCTS

Because of their inertness and great bulk per unit of weight, Celite Mineral Fillers make ideal bulking agents for powders and pastes. Their tiny multi-shaped particles interlace to stiffen and strengthen admixtures. The microscopically small facets of these particles diffuse light so effectively that they can be utilized to impart any desired degree of flatness to a surface film. Their light, porous nature improves suspension, helps prevent segregation. And their high absorption properties and unique diatom structure make them unusually effective as a means of overcoming caking in deliquescent materials.

If you are looking for the "extra something" to lift your product above competition—at a negligible cost—why not discuss your problem with a Johns-Manville Celite Engineer? For further information and samples, write Johns-Manville, Box 60, New York 16, N. Y.

CHECK THESE CELITE BENEFITS FOR YOUR PRODUCTS

- Added Bulk
- Better Suspension
- Faster Cleaning Action
- Greater Absorption
- Improved Color
- Increased Viscosity
- Elimination of Caking
- Better Dry Mixing
- Improved Dispersion

*Celite is Johns-Manville's registered Trade Mark for its diatomaceous silica products.

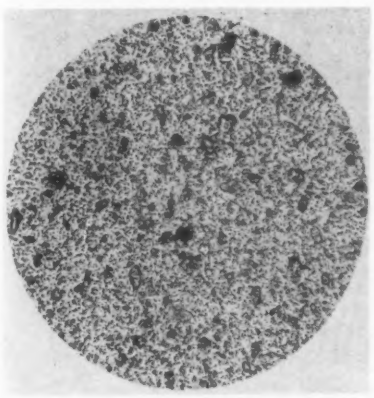
JOHNS-MANVILLE JM PRODUCTS

Johns-Manville CELITE INDUSTRY'S MOST VERSATILE MINERAL FILLER

siderably increased. A photomicrograph of the flux-calcined fines is shown in Figure 9.

Some of the significant physical properties of the principal polish grades of diatomite are shown in Table 1. Specific gravity is increased by the straight calcination and still further increased by flux calcination. Particle size is increased mainly through having lower extreme fines content in the calcined powders, in part due to sintering together or fluxing of extreme fines to form larger particles. Abrasion values shown were obtained with the Valley Iron Abrasion Tester. In this test, measurement is made of the loss in weight of a bronze screen due to rubbing with a heavy perforated block over which a water suspension of the abrasive is pumped. The Valley Abrasion Number represents the milligrams of metal abraded away in 6000 strokes. Values for typical samples of the three principal diatomite polish grades are shown; namely, 70, 300, and 500 for the natural, straight-calcined and flux-calcined air-floated grades respectively. In comparing grit-free diatomite polish grades, the three factors affecting abrasiveness are particle size, hardness of particles and particle shape. Grit-free natural diatomite of approximately the same particle size as the straight-calcined air-floated fines shows abrasion number of 250 as compared to 300 for the calcined product. Abrasive characteristics can be controlled over a wide range by control of particle size and manner of calcination, so that products for any special cleaner or polish requirement within the diatomite range can be prepared.

Figure 11. Tripoli 300 X



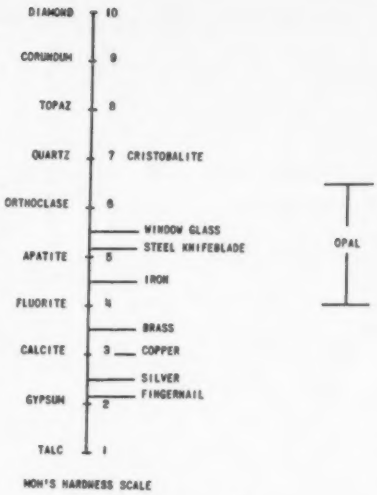


Figure 10

Consideration of Moh's hardness scale for minerals is of interest as applied to polish abrasives and to metals and surface finishes commonly cleaned and polished by abrasives. By this scale, minerals of varying hardness are classified by a scale of numbers increasing with increasing hardness from 1 (Talc) to 10 (Diamond) on the basis that any mineral in the scale will scratch the mineral directly beneath it on the scale and with increasing ease, minerals still lower on the scale, depending on the difference in hardness between the minerals compared. Moh's hardness scale is shown in Figure 10. On this scale diatomite is considered as showing the hardness of opal, sometimes rated as of hardness 5.5 to 6.5, but probably is rated more correctly as of hardness 4.0 to 6.5. Natural diatomite shows hardness as low as 4.0 for it appears only very slightly harder than brass, which is of hardness about 3.5, and is not sufficiently harder than brass to polish it effectively. Natural diatomite is harder than automobile finishes, but only about as hard as necessary for effective polishing and not hard enough to cause excessive removal of finish.

Tripoli (Figure 11) and quartz (Figure 12), commonly used as polish abrasives, are harder and more abrasive than diatomite. If sufficiently fine, scratches in an automobile finish polished with these materials will not be visible, but wearing of surface finish will be more rapid than with diatomite of comparable particle size. Cryptocrystalline and crystalline silicas do not have the porous, thin-walled shell structure characteristic of diatomite which breaks down in polish use to form constantly new points of contact for mild but effective polishing action. Diatomite is used as the abrasive in automobile cleaners and polishes because it is an ideal material for supplying the required abrasion factor with minimum wearing down of the finish.

Generally there is no definite distinction between automobile cleaner and polish and many products are sold as combined cleaner and polish. Some distinction in function can be stated in that the cleaner is designed to remove the traffic film of adherent dust and soot not readily removed by ordinary washing plus the dull, chalky film of oxidized pigmented finish. Polish function consists in restoring the original color and luster of the finish by removing a very thin outer layer of the finish to expose a fresh surface. The natural air-floated fines grade of diatomite generally is considered the most suitable for either or both functions since it provides adequate abrasiveness for the usual and proper maintenance and preservation of finish with minimum re-

(*Turn to Page* 175)

Figure 12. Quartz 300 X

THE "NIGHTCAP" WITH A KNOCKOUT

GEIGY METHOXYCHLOR FORMULATIONS

they're positively deadly to bugs!

Ever see a covey of bugs fly unscathed through a cloud of insecticide like they had radar? Or see them shake off a direct hit and amble away unharmed and unconcerned? That's the time to start specifying GEIGY METHOXYCHLOR, the chemicals that are positively deadly to pests but relatively safe to human beings and animals. GEIGY METHOXYCHLOR products are effective for fly control, storage pests and for fruit, vegetable and forage crops. They are available as the following:

GEIGY METHOXYCHLOR "25E"
(25% emulsifiable solution—
2 lbs. methoxychlor per gal.)

GEIGY METHOXYCHLOR "90"
(90% methoxychlor)

GEIGY METHOXYCHLOR "20"
(20% methoxychlor solution)

GEIGY METHOXYCHLOR "50"
(50% methoxychlor wettable powder)

GEIGY 5% METHOXYCHLOR DUST

ORIGINATORS OF Geigy DDT INSECTICIDES

GEIGY AGRICULTURAL CHEMICALS • *Division of Geigy Chemical Corporation* • 89 BARCLAY ST., NEW YORK 8, N. Y.

Aberdeen, N. C.; Burlington, Iowa; Elkton, Md.; Fresno, Calif.; Houlton, Me.; Leland, Miss.; McGregor, Tex.; Orlando, Fla.; Yakima and Walla Walla, Wash.

Toxicity of Quaternaries

By J. K. Finnegan and J. B. Dienna*

Medical College of Virginia, Richmond — Rohm and Haas Co., Philadelphia

QUATERNARY ammonium bactericides are employed widely as disinfectants and sanitizers in fields related to public health. Their major applications are (1) in the restaurant field as terminal sanitizers on dishes, glassware and eating utensils, (2) in the dairy field primarily in sanitizers and detergent-sanitizers used on milking equipment, (3) as janitorial disinfectants and deodorants, (4) in food plants as terminal sanitizers on equipment, (5) in hospitals as general disinfectants, (6) in barber shops and beauty parlors for equipment disinfection, (7) for disinfection and sanitization of fabrics such as baby diapers, (8) for mold control in food storage rooms, and (9) for algae control in swimming pools. In addition, these products find volume usage in the poultry and veterinary field as chicken drinking water sanitizers, in egg handling, both on the farm and in egg breaking plants, as general farm disinfectants, and as topical antiseptics. The drug industry also makes use of these compounds as anti-bacterial agents in formulations employed as skin antiseptics, particularly for the control of diaper rash on babies.

In practically all of these applications, contact with the skin, either incidental or functionary, is encountered, and in many cases the possible accidental ingestion of relatively sizable quantities must be recognized. We must also be realistic in accepting the possibility of accidental contamination of foodstuffs due to improper rinsing of equipment following quaternary use.

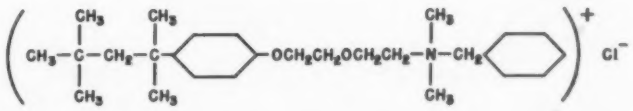
Having before us the possible contamination of foodstuffs, accidental oral ingestion, and skin exposure, we must consider the implications from the standpoint of toxic effects. We should know the acute oral toxicity of these compounds, and whether skin irritation or sensitization is a factor. We should know whether skin absorption creates any hazards. Finally, we should have a clear idea of the chronic toxicity of these compounds, to determine whether any deleterious effects can be expected from their continuous ingestion in foods or water over a long period of time. The significance of such knowledge gained about these products is related to the actual amount of quaternary ammonium compound that we could expect to find on equipment following sanitization. This has been determined on glassware prewashed with detergent, rinsed with 200 ppm quaternary solution (the normal sanitizing concentration) and allowed to drain for two minutes. Because the glassware was not drained dry, the values found were considered to be maximum. Utilizing a modification of the Harper, Elliker, and Mosely titrametric procedure, concentrations ranging from only 0.24 ppm to 0.36 ppm quaternary were found in the solution when the glasses were filled with distilled water. Incidentally, both anionic and nonionic detergents were employed in prewashing the glasses; those washed with anionic gave generally slightly lower results.

The two well known commercial quaternary ammonium chlorides shown in figure 1, "Hyamine 1622" (diisobutyl phenoxy ethoxy ethyl dimethyl benzyl ammonium chloride), and "Hyamine 2389" (alkyl C_{19}-C_{15} tolyl methyl trimethyl ammonium chlorides) manufactured by the Rohm and Haas Company, were submitted to a series of tests. "Hyamine 1622" is supplied as a crystalline material,

Figure 1

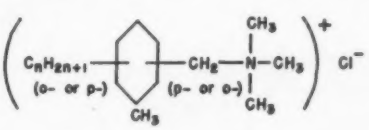
HYAMINE 1622

DI-ISOBUTYL PHENOXY ETHOXY ETHYL DIMETHYL BENZYL AMMONIUM CHLORIDE



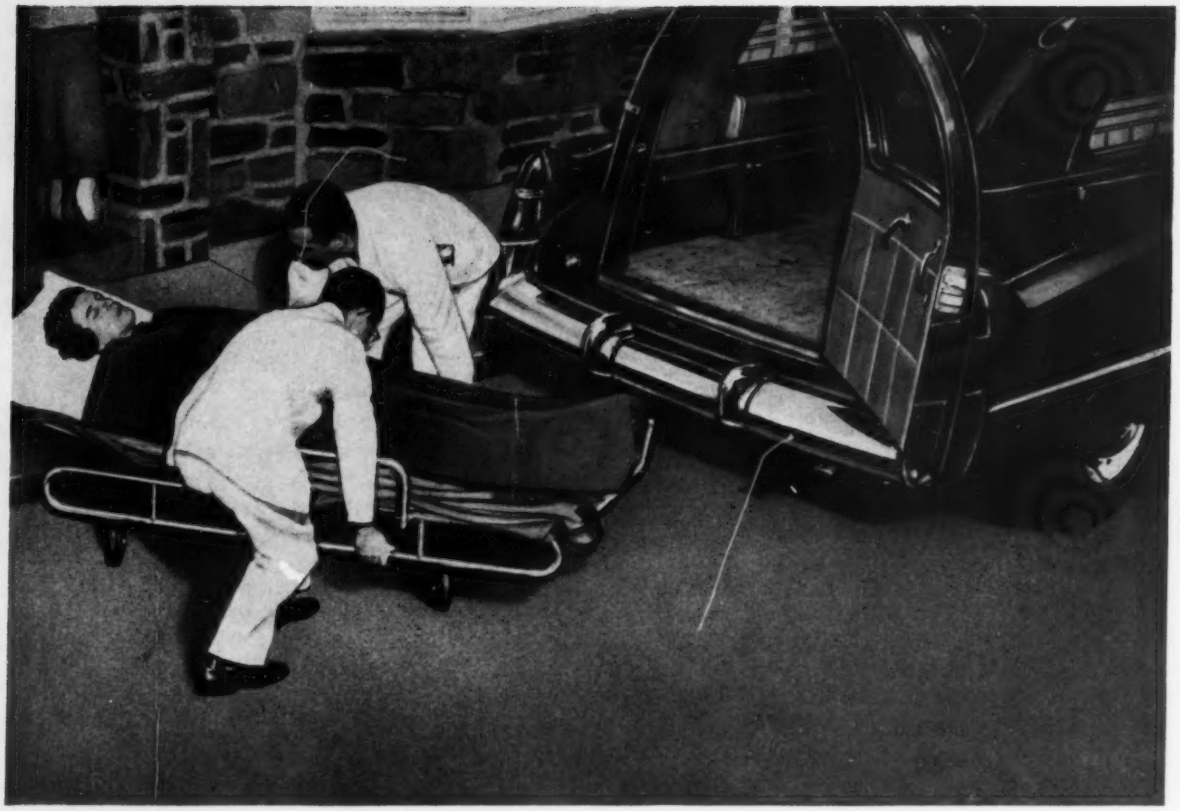
HYAMINE 2389

ALKYL (C9 to C15) TOLYL METHYL TRIMETHYL AMMONIUM CHLORIDES



(n = 9 to 15)

*Paper presented before the 40th annual C.S.M.A. meeting, Washington, Dec. 8, 1953.



Did they pick her up from your customer's floor?

New CHECK-SLIP* floor care system combines safety, economy, non-glare beauty

Safety— Slipping on skiddy, waxy floors is a major cause of accidents in offices. These accidents are a headache to your customer and his insurance company—because they cost money and lower office morale and efficiency. *And they can cost you customers.*

You can effectively help reduce this accident hazard by offering the new CHECK-SLIP floor care system. CHECK-SLIP is a waxless coating with all the beauty and durability of the old-type finish but with none of its slipperiness and waxiness. It's actually LESS SLIPPERY THAN THE ORIGINAL TILE!

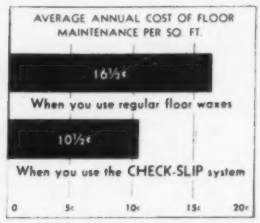
If you want to build bigger profit for yourself and lower costs for your customers, ask Hollingshead to send you the new CHECK-SLIP story that tells about "Lustre Without Slip —Protection Without Wax."

Industrial Division

R. M. Hollingshead CORPORATION

LEADER IN MAINTENANCE CHEMICALS

858 Cooper Street, Camden 2, New Jersey



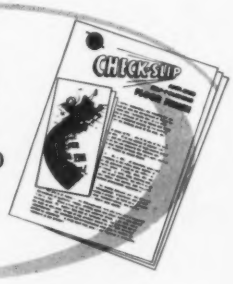
Economy—Chart compares total average annual cost (product plus labor) of maintaining floors using CHECK-SLIP versus regular floor wax. CHECK-SLIP is faster, easier to apply . . . requires fewer applications.

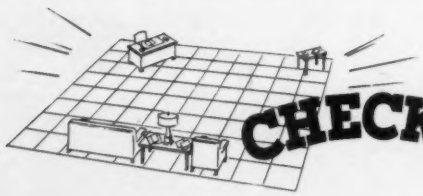
Non-glare Beauty—CHECK-SLIP gives floors a pleasing, attractive luster in keeping with the trend away from efficiency-lowering, high-reflectivity finishes. Employees find it easy on the eyes, safe to walk on.

**Specifically formulated for asphalt tile floors.*

WRITE TODAY
for this literature which tells how to use CHECK-SLIP for greater floor safety, economy and beauty.

SEE US IN BOOTH # 20
NSSA CONVENTION





CHECK-SLIP *THE NEW WAXLESS FLOOR PROTECTION*

whereas "Hyamine 2389" is a 50% concentrate in water solution.

Studies on the pharmacology of similar quaternary ammonium germicides in general have been quite limited in number (Alfredson et al., 1951; Fitzhugh and Nelson, 1948; Harshbarger, 1942; Shelanski, 1949; Woodard and Calvary, 1945) and "Hyamine 1622" and "Hyamine 2389" have been reported on only in a preliminary abstract (Finnegan et al., 1952).

Experimental Procedures and Results:

Acute Toxicity Experiments on Rats:

THE acute toxicities of "Hyamine 1622" and of "Hyamine 2389" were determined on young adult male albino rats by the oral, intraperitoneal and intravenous routes. Ten rats were used at each of the significant points run on each sample. The LD_{50}'s as calculated by analysis of regression (Snedecor, 1946) using log-dose probit units are shown in Table I.

In the case of "Hyamine 2389," when given by the intravenous route, death resulted in a few minutes. With intraperitoneal administration most deaths occurred in 10 to 20 minutes. With oral administration time of death ranged from 10 to 60 minutes, only a few occurring later than this. In general, survival time was more prolonged with "Hyamine 1622." Although rats receiving the material intravenously usually died within 10 minutes a few of the deaths were delayed for several hours. By the intraperitoneal route death usually resulted within 24 hours. When administered orally a few deaths occurred within 24 hours, but about half of the deaths were delayed for one week. The maximum survival time of those that ultimately died was 21 days. In all cases death was preceded by severe depression. It was noted that the animals receiving "Hyamine 1622" intravenously quickly developed hematuria. Erythrocyte counts on some of these animals 48 hours after dosing showed values of approximately 6×10^6, somewhat lower than normal but not severely so.

Table I

Acute Toxicities of Hyamine 1622 & Hyamine 2389 to Rats

Compound	Route of Administration	$LD_{50} \pm$ S.D. (mgm./kgm.)
1622	Oral	420 ± 25
	Intraperitoneal	33.1 ± 2.5
	Intravenous	19.1 ± 0.8
2389	Oral	389 ± 28
	Intraperitoneal	10.23 ± 1.00
	Intravenous	3.06 ± 0.13

Chronic Toxicity Studies on Rats:

IDENTICALLY designed 2-year feeding experiments on rats were done on "Hyamine 1622" and "Hyamine 2389." For each compound a group of 60 male and 60 female albino rats of weaning age was divided into 12 colonies of 10 rats each (separated as to sex) and each rat individually caged. Finely ground "Purina Dog Chow Meal" served as a basic diet and into this was thoroughly mixed amounts of the "Hyamine" calculated to result in the following concentrations of the active ingredient: O (Control), 50, 200, 1000, 2500 and 5000 ppm (parts per million). One colony of each sex was placed on each dietary level.

Table II

Survival Data for Rats Receiving Hyamine 1622 or Hyamine 2389 in Their Diets for a Two-Year Period.

Compound	Sex	Dietary Concentration (p.p.m.)	Number of Survivors							
			1 wk.	5 wk.	10 wk.	30 wk.	50 wk.	70 wk.	93 wk.	104 wk.
Hyamine 1622	Male	0	10	10	10	10	9	9	7	5
		50	10	10	10	10	9	8	4	3
		200	10	10	10	10	10	7	6	3
		1000	10	10	10	10	10	9	8	5
		2500	10	10	10	10	10	10	8	6
		5000	10	10	10	5	5	5	3	3
	Female	0	10	10	10	10	10	9	8	4
		50	10	10	10	10	9	9	8	5
		200	10	9	9	9	9	9	8	4
		1000	10	10	10	9	9	8	6	3
		2500	10	10	10	10	10	10	8	8
		5000	10	9	9	5	4	2	2	2
Hyamine 2389	Male	0	10	10	10	9	9	8	4	2
		50	10	10	9	9	9	8	6	5
		200	10	10	10	10	10	8	6	3
		1000	10	10	10	10	10	9	9	5
		2500	10	10	10	10	9	9	8	7
		5000	7	2	2	0	0	0	0	0
	Female	0	10	10	10	10	9	7	5	2
		50	10	10	10	10	9	9	7	6
		200	10	10	10	10	10	8	7	7
		1000	10	10	10	10	10	10	10	7
		2500	10	9	9	9	9	9	7	4
		5000	7	2	2	0	0	0	0	0

Survival data for each colony at representative time intervals are shown in Table II. It would appear that mortality is not appreciably affected by either "Hyamine" until a dietary level of 2500 ppm is exceeded. In the case of "Hyamine 1622" this mortality trend first became apparent at between 10 and 30 weeks, whereas with "Hyamine 2389" it appeared within one week and was very definite at 5 weeks and thereafter.

Table III presents growth data for each colony at representative time intervals. With "Hyamine 1622" growth did not appear to be significantly inhibited ($P = < .05$) until a dietary level of 2500 ppm was exceeded, and this inhibition was apparent as early as the first week. With Hyamine 2389 growth was inhibited at a level below that which produced increased mortality in that 2500 ppm brought about a decreased rate of growth that was statistically significant after about 50 weeks.

Erythrocyte counts, hemoglobin determinations and differential white blood cell counts were done during the eleventh and twenty-third months of feeding. All values appeared to be within normal ranges.

Animals dying during the experiment that were not obviously autolyzed and all survivors of the 2-year period were necropsied and the following organs preserved in 10 per cent formaldehyde for histopathologic examination: heart, liver, lungs, thyroid, stomach, small intestine, cecum, large intestine, spleen, pancreas, kidneys, adrenals and gonads. Microscopic examination was made, in the main, on tissues from animals that either survived the experiment or died shortly before it terminated.

"Hyamine 1622" did not appear to produce any unique microscopic changes in rats until a dietary concentration of 2500 ppm was reached. One of the 6 males examined at this level and 2 of 3 males receiving 500 ppm displayed testicular atrophy. Of the 3 non-malignant tumors (mammary fibro-adenomas) that were seen, none were found in animals on the 2 higher feeding levels. This occurrence of 3 tumors in the 46 animals that survived at least 100 weeks (6.5 per cent incidence) is in our experience low for rats of this age. The only malignancy seen, a subcutaneous reticulum cell sarcoma found in one male receiving 200 ppm for 53 weeks, would appear to have no relationship to the Hyamine "1622" administration since no other such tumor was seen in animals receiving higher dietary levels for longer periods of time.

"Hyamine 2389" gave no indication of producing histopathologic changes at any of the levels fed. Five tumors (mammary fibromas and fibroadenomas) were found in the 31 rats studied that had survived at least 97 weeks, an incidence of 16 per cent. This is not an abnormally high incidence in our experience for rats of this age.

It was noted at the time of the first necropsies that animals on the higher feeding levels of either compound had ceca greatly distended by gas and very fluid contents. A similar finding has been described by Fitzhugh and Nelson (1943) and by Alfredson, et al., (1951) in rats fed alkyldimethylbenzyl-ammonium chlorides. This condition was first seen in our studies at a level of 1000 ppm of each compound and became progressively more pronounced with increasing

Table III

Average Body Weight Data for Rats Receiving Hyamine 1622 or Hyamine 2389 in Their Diets for a Two-Year Period.

Compound	Sex	Dietary Concentration (p.p.m.)	Average Body Weight (gm.)								
			Start	1 wk.	5 wk.	10 wk.	30 wk.	50 wk.	70 wk.	90 wk.	104 wk.
Hyamine 1622	Male	0	48	74	224	333	494	522	545	547	535
		50	48	77	212	324	486	516	545	496	483
		200	48	76	216	322	468	517	560	579	576
		1000	48	79	216	332	516	566	637	593	577
		2500	48	74	211	330	456	506	552	542	478
		5000	48	61	167	278	353	389	373	384	401
	Female	0	46	72	156	201	269	300	314	345	283
		50	46	76	167	214	284	317	361	380	424
		200	46	69	154	202	260	294	326	343	339
		1000	46	73	158	208	282	324	370	358	375
		2500	46	68	145	188	246	284	328	342	347
		5000	46	56	137	186	221	229	232	252	257
Hyamine 2389	Male	0	67	101	224	313	474	502	522	520	438
		50	67	96	235	328	474	506	541	551	477
		200	67	101	233	337	494	535	589	504	507
		1000	67	95	219	321	478	521	583	552	520
		2500	68	88	193	303	419	460	473	503	471
		5000	67	59	80	168	—	—	—	—	—
	Female	0	60	90	157	199	260	293	325	351	360
		50	60	90	165	212	262	285	319	327	304
		200	61	84	149	197	257	289	340	344	362
		1000	61	87	153	194	267	299	356	399	401
		2500	60	79	146	191	244	263	272	306	311
		5000	60	59	127	175	—	—	—	—	—

dietary concentration. Time of onset of enlargement was less than a week. Although microscopic examination showed thinning of the cecal wall, no abnormal cytologic picture was seen. Figure 2 illustrates this condition in a male rat which was sacrificed after having been fed the 5000 ppm diet of Hyamine 1622 for 66 weeks.

Chronic Toxicity Studies on Dogs:

BOTH compounds were fed to dogs for 1 year at dietary levels of 5, 100, and 500 ppm. The diets were prepared as described above for the rat studies. Three adult mongrel dogs were placed on each concentration of each compound.

There were no deaths and all animals appeared well and gained weight during the experiment.

Prior to the start of the experiment and during the sixth and twelfth months, hemoglobin determinations and complete blood counts were done. All values appeared to be within normal limits.

At the end of the 1-year feeding period the dogs were necropsied and representative tissues (as listed for the rats) taken for histopathologic examination. No gross or microscopic abnormalities were observed in any of the dogs.

Studies on the Water Content of the Feces and Cecal Contents in Rats:

THESE studies were undertaken as a result of the observation that in the chronic rat feeding experiments the ceca were grossly distended at the higher feeding levels.

Sixty-six young male albino rats were individually caged and placed on a diet of finely ground Purina Dog Chow Meal for 10 days, and were divided into groups of 6. One group was continued on the control diet, and the other 10 groups were placed on diets containing 50, 200, 1000, 2500 and 5000 ppm. of "Hyamine 1622" or "Hyamine 2389." On the day before the rats were placed on the "Hyamine" diets and on the fourth, seventh and twelfth days of this regime, feces were expressed from each rat, placed in tared vials, weighed, dried in an oven at 105°C. for 24 hours and reweighed to obtain moisture/dry weight ratios. In this study use was also made of the rats on all feeding levels of the 2-year program which at that time had received the experimental diets for 16 weeks. In addition, the moisture content of the cecal contents was determined in all of the animals on the 12 day experiment with the exception of those on the 5000 ppm. level of "Hyamine 2389" which had all died before that time. At the lower dietary levels (0, 50, 200 and 1000 ppm.) the total weight of the cecum and its contents was also determined.

Fecal moisture ratios in the 12 day experiment were significantly increased ($P = < .05$) only at the two higher feeding levels (2500 and 5000 ppm) of both compounds, and this increase had reached its maximum by the time the first samples were taken after 4 days on the "Hyamine" diets. In the rats that had been on the 2-year feeding program for 16 weeks only those on the 5000 ppm levels of the "Hyamines" showed a significant increase in fecal moisture. Thus some adaptation appears to occur with continued exposure.

Significant increases in cecal moisture appeared in the rats receiving 2500 ppm of "Hyamine 1622" or "Hyamine 2389" for 12 days. This was also true at the 5000 ppm level of "Hyamine 1622." The increase in cecal moisture in the rats receiving 1000 ppm of the compounds was of borderline signficance; below 100 ppm there was no significant change.

The total weights of ceca and contents increased significantly in the rats receiving 1000 ppm of the "Hyamines" for a period of 12 days but not for those receiving lower concentrations. Similar determinations were not made on rats receiving 2500 and 5000 ppm diets since visual inspection indicated that progressively greater increases occur at these levels.

Figure 2

Effect on Intestinal Flora Content in Rats:

THE known germicidal action of "Hyamine 1622" and "Hyamine 2389" raised the possibility that alteration in intestinal flora might be involved in the intestinal tract changes just described.

The same animals were used in this study that were used in the investigation on fecal and cecal water content. Immediately before placing the 12-day animals on the "Hyamine" diets and on the third, sixth and twelfth days of the experiment, freshly expressed feces were obtained from each rat for bacteriologic examinations. At the termination of the experiment samples of cecal contents were also taken. Bacteriologic examinations were also made on fresh feces from the rats that had been on the 0, 200 and 5000 ppm levels of the Hyamines for 16 weeks in the 2-year feeding program.

The feces or cecal contents were pooled as to dietary level, ground and placed in peptone broth. Ten successive 10-fold dilutions in broth were made and 1 ml. samples of each dilution were transferred to Petri dishes for preparation of pour plates. Two series of plates were made from each dilution. For aerobic bacterial counts the medium was dextrose-tryptose blood agar

(*Turn to Page* 157)

LET'S GET DOWN TO "Essentials"

Felton Quality Control starts right back at the prime source. That's why discriminating users consider the Felton Essential Oils listed here always the best dollar values offered.

- ☐ Almond
- ☐ Anise
- ☐ Bay
- ☐ Bergamot
- ☐ Birch
- ☐ Bois de Rose
- ☐ Cananga
- ☐ Cassia
- ☐ Cedarleaf
- ☐ Cedarwood
- ☐ Cherry Laurel
- ☐ Cinnamon
- ☐ Citronella
- ☐ Clove
- ☐ Copaiba
- ☐ Coriander
- ☐ Eucalyptus
- ☐ Geranium
- ☐ Grapefruit
- ☐ Guaiacwood
- ☐ Labdanum
- ☐ Lavandin
- ☐ Lavender
- ☐ Lemon
- ☐ Lemongrass
- ☐ Limes
- ☐ Orange
- ☐ Patchouly
- ☐ Peppermint
- ☐ Petitgrain
- ☐ Pimenta
- ☐ Rosemary
- ☐ Sage
- ☐ Sandalwood
- ☐ Spike
- ☐ Spearmint
- ☐ Thyme
- ☐ Vetivert
- ☐ Wintergreen
- ☐ Ylang Ylang

GET IN TOUCH WITH US NOW FOR LATEST QUOTATIONS!

AROMATICS • PERFUME BASES • ESSENTIAL OILS

FELTON CHEMICAL COMPANY, INC.
599 Johnson Ave., Brooklyn 6, N. Y.

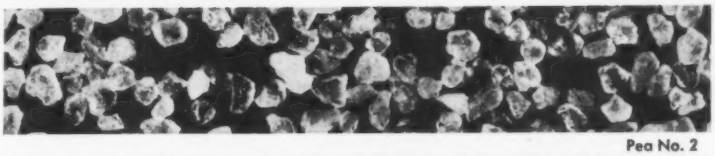
PLANTS: BROOKLYN, N. Y. • LOS ANGELES, CAL. • MONTREAL, QUE. • PARIS, FRANCE
SALES OFFICES: ATLANTA • BOSTON • CHICAGO • DALLAS • PHILADELPHIA
ST. LOUIS • TOLEDO • TORONTO
STOCKS CARRIED IN PRINCIPAL CITIES

7 ways to make More Profit from paradichlorobenzene

All photos actual size

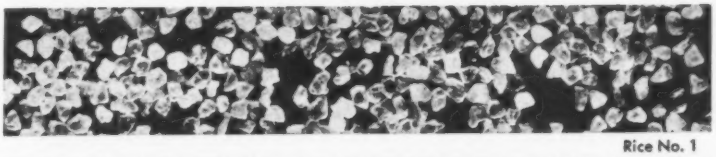
Pea No. 1

1. REPACKAGE these big sparkling crystals, just as they come from the drum. A pound looks like more . . . has extra retail appeal.



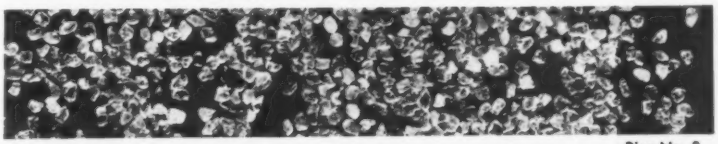
Pea No. 2

2. ADD VARIETY to your mothicide line, with these finer, free-flowing crystals. They're ready to repackage as is—or can be perfumed without melting.



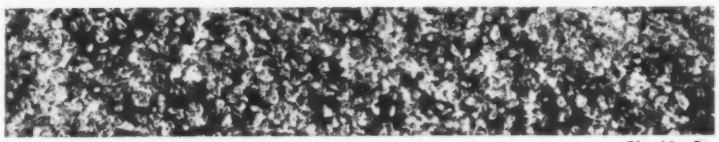
Rice No. 1

3. OFFER THIS SPECIAL fine size for sprinkling in folds and seams of clothing. This crystal size sublimes quickly, to give unusually high concentration of moth-killing fumes.



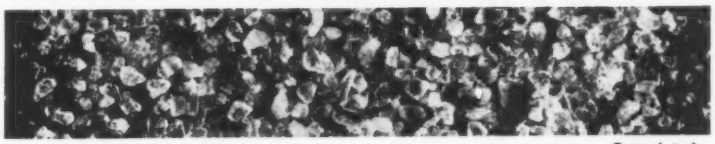
Rice No. 2

4. FEED YOUR POWER PRESSES with this size. It's just right for compressing into blocks and pellets. Flows very freely, so is ideal for automatic presses where dies must be refilled rapidly.



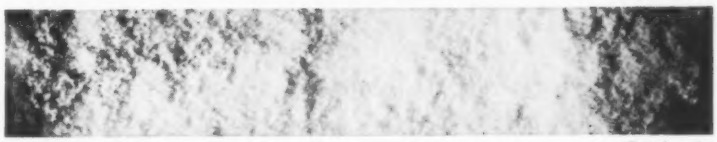
Rice No. 3

5. USE THIS FINER SIZE in foot-operated presses. It's free-flowing but small enough to pack and compress easily with least effort, for maximum production.



Granulated

6. BOOST FARM SALES with this bulk-package size. It's often recommended for controlling peach tree borer, tobacco blue mold; as a weed killer in cranberry bogs; in control of poison ivy and other weeds.



Powdered

7. MELT THIS superfine size, and ladle it into molds for blocks and pellets. It melts rapidly, saves you production time. It's easily colored, perfumed.

PARADI®

100% pure Hooker paradichlorobenzene—Shipped in fiber drums —25, 50, 100 and 200 lbs. net.

This year, be sure you get the size of paradichlorobenzene that does most for you—product-wise, profit-wise. You can get any of these sizes when you specify PARADI.

FREE FOLDER tells how to mold, compress, dissolve, perfume, color, and repackage PARADI. Send for Hooker Bulletin 454 today.

From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY

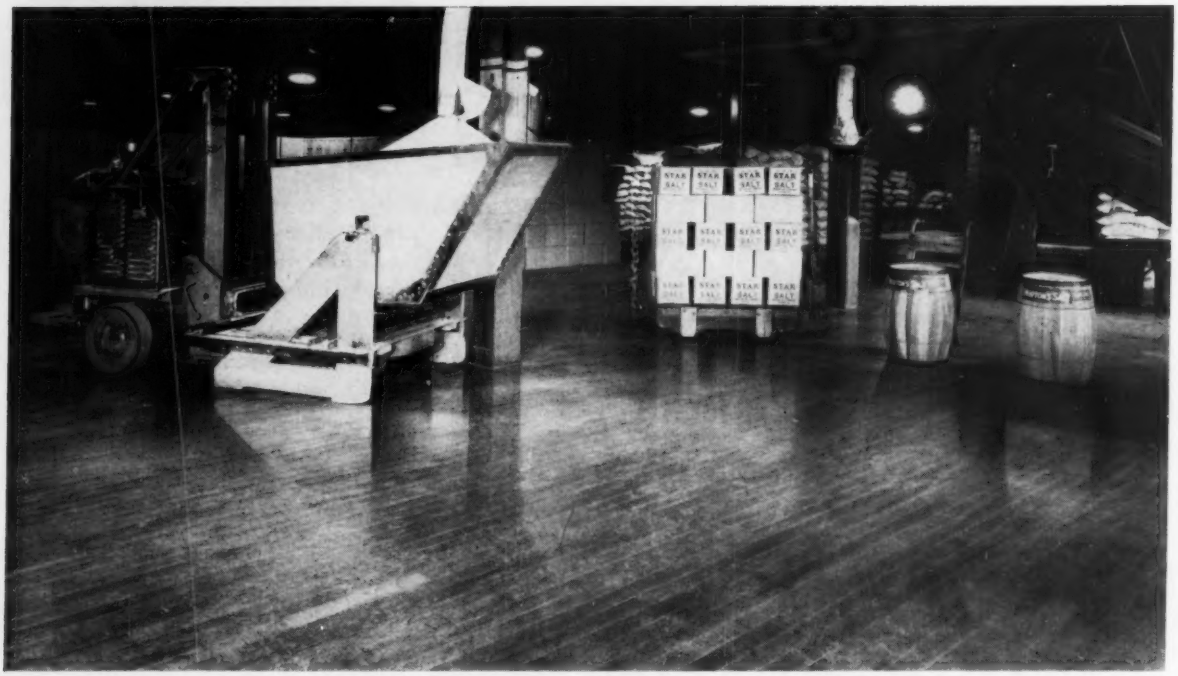
Buffalo Avenue & Union Street, Niagara Falls, New York

NIAGARA FALLS • TACOMA • MONTAGUE, MICH. • NEW YORK • CHICAGO • LOS ANGELES

HOOKER CHEMICALS

2-2011

the Floor Sealer that dries for use in less than 2 hours!



FEDERAL FAST-DRY STAY-LIGHT SEALER

STAY-LIGHT CONTROLS PENETRATION— ELIMINATES WASTE

Stay-Light Sealer gives you controlled, *even* penetration.

ORDINARY SEALER

STAY-LIGHT SEALER

For this reason, there is no waste of material when applied to porous pine and fir floors. This means economy for you.

Here is an industrial floor sealer that is truly light in color, dries dust free in 45 minutes, and can be used in less than 2 hours. Ideal for industry where speed finishing is a must . . . STAY-LIGHT eliminates room tie up—lets you keep production rolling.

Fast-Dry Stay-Light Sealer will not fade. Ideal for concrete, wood and linoleum—seals, hardens and water proofs in one coat. It provides the perfect base for waxes, varnishes and gym finishes where needed.

FAST-DRY STAY-LIGHT SEALER — *another first from Federal!*

Federal VARNISH DIVISION

2841 S. Ashland Ave., Chicago 8, Ill. *The Pioneers in Floor Sealers -- Finishes and Waxes*

base (Difco). Anaerobic pour plates were prepared using anaerobic agar with dextrose (B.B.L.) and Brewer anaerobic Petri dish covers. All plates were incubated 48 hours at 37°C. The sum of the aerobic and anaerobic counts was considered as the total number of bacteria present.

The prevalence of the different types of aerobic bacteria was determined by preparing streak plates from the 1:10 and 1:100 dilutions on blood agar and eosin methylene blue agar plates. Identification was made by colony appearance with occasional preparation of Gram-stained smears of individual colonies for confirmatory purposes. In addition, the incidence of Gram positive to Gram negative bacteria was determined by examination of Gram-stained smears prepared from "standard" loopfuls of the 1:10 diutions of fecal or cecal material spread evenly over the measured surface of glass slides. The variations in the protozean population of fecal and cecal material was determined by examination of wet mounts from the 1:10 dilution.

The results of these experiments indicate that only the 2500 and 5000 ppm levels of either of the "Hyamines" produced a marked reduction in the Gram positive bacterial flora of the feces and cecal contents. At these same levels there also occurred a relative increase in the *E. coli* and/or *A. aerogenes* and *P. vulgaris* flora. It is interesting to note that these levels were those associated with changes in moisture of feces and cecal contents. The relative number of aerobic and anaerobic and the total number of bacteria was not altered nor were the protozoan fauna. Blood obtained by cardiac puncture from moribund animals of the 5000 ppm level was bacteriologically negative.

Effect on Tone and Motility of the Intestine:

IT also seemed possible that the effect on the gut might be due to a direct decrease in tone or motility. Therefore, the effects of "Hyamine 1622" and "Hyamine 2389" on isolated segments of rabbit and rat ileum were studied by the Magnus technic. Amounts of either "Hyamine 1622" or "Hyamine 2389" were added to the muscle bath so as to result in concentrations of from 0.5 per cent (5000 ppm) down to 0.00005 per cent (0.5 ppm). Fresh segments were used for each concentration.

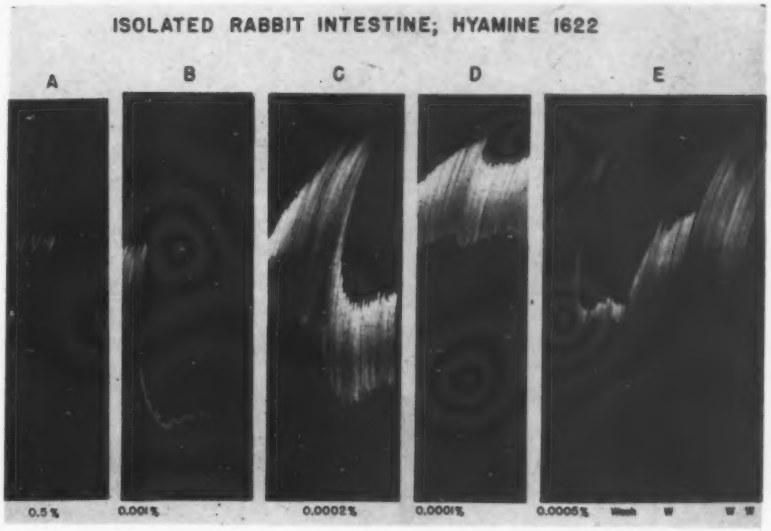


Figure 3

Both compounds appeared to be of equal potency in their inhibition of the smooth muscle of the rabbit ileum. Concentrations of either agent down through 0.002 per cent produced cessation of contractions and greatly decreased the tone of the muscle. At 0.001 per cent tone was equally depressed but a slight degree of motility remained. At 0.0002 per cent, although tone was still quite markedly depressed, motility was not severely diminished. At 0.0001 per cent there was but slight effect on muscle tone and no effect upon the rhythmic movements. The 0.00005 per cent concentration caused no effect on either activity. An example of these effects is shown in Figure 3. Rat ileum reacted in a similar fashion but seemed slighly more sensitive to these agents.

The "Hyamines" did not act as general protoplasmic poisons on intestinal smooth muscle but rather appeared to have a more specific effect. The depression produced by concentrations as high as 0.005 per cent in the muscle bath could be reversed by 2 or 3 changes of Locke-Ringer's solution, the muscle being restored to its original state of tone and motility (see part E, Figure 3).

Ganglionic Blocking Action:

THE quaternary ammonium structure of the "Hyamines" suggested that they may have some degree of autonomic blocking action. Investigation of this possibility was carried out with both compounds in dogs. The animals, anesthetized with Dial-urethane, were arranged for recording carotid arterial pressure. The pressor response to a fixed intravenous dose of epinephrine and of nicotine was first determined. The "Hyamine" was then administered intravenously, and following restabilization of blood pressure the previously used doses of epinephrine and nicotine were given. Since nicotine produces its pressor action through ganglionic stimula-

(*Turn to Page* 173)

Marketing . . .

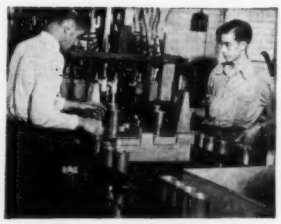
(*From Page* 137)

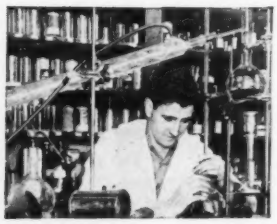
cases out of ten the poor results obtained were caused by not reading and following label directions. It's

You CAN Add an AEROSOL Line . . . and without spending a dime for plant or equipment

Now is the time to evaluate your product for "push-button" dispensing. Aerosols are booming. New applications for appealing, self-spraying packages are being discovered every day. If you are presently marketing your product in liquid form, the chances are you can also package it as spray or foam. Your product deserves analysis now, so we suggest you arrange with us for a free, comprehensive laboratory report. On the physical side, Continental's complete production, laboratory, and warehousing facilities eliminate any capital expenditure on your part. We do not merchandise packaged items of our own. Our sole operation is filling containers with your products . . . liquid, pressurized, or aerosol. Write today.

PRODUCTION. Continental operates 2 modern plants. Facilities will handle oil and water-base products, and refrigeration, pressure or liquid filling in any quantity. You expand sales . . . but invest nothing.

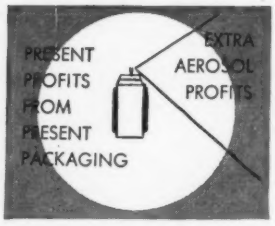




LABORATORY. Product, container, and valve research plus a tight system of quality control assure perfect product performance. We meet I. C. C. specifications and other regulations for your protection.

HERE'S HOW TO ENTER THE BOOMING *Aerosol Market* . . . USING OUR INVESTMENT

WAREHOUSING. Ample bulk storage space enables us to keep a good supply of your ingredients available at all times. Drop shipping in bulk lots. Use our Midwest plants as central distributing points.



Aerosol packaging may mean a bigger market for you. Aerosols adapt to perfumes, deodorants, medicines, insecticides, household chemical specialties, etc. Get our report now!

CONTRACT AND CUSTOM FILLING

MAIN OFFICE • 123 NORTH HAZEL STREET, DANVILLE, ILLINOIS

CONTINENTAL FILLING CORPORATION

PLANTS • DANVILLE, ILLINOIS — HOBART, INDIANA

no secret that women are very poor label readers!

There are two basic types of complainants—the woman who has purchased and used a good brand name product and is disappointed in the results but is sincerely interested in getting help, and the woman who expects miracles of a product or is out to get something for nothing. Of course, there is always the chronic complainer. For example, I called on a housewife recently and demonstrated to her why she was not getting the results she expected when polishing her furniture. While I was working with her she said her husband was writing a certain brewer because his beer didn't taste the same and that she had already heard from a cigarette company to whom she wrote objecting to the wastefulness of king-size cigarettes and had received several cartons of the regular size at no charge. She was also going to contact her alderman because she didn't like the way the garbage man left the covers on the cans at the curbings! That woman wouldn't be satisfied in heaven!

Then there is the letter from a woman who says all the members of her club are disappointed in a product's performance. When you make arrangements and attend the next club meeting, you discover that she took it upon herself to speak for all of them and that everything is just fine. Here's where the home economist becomes an ambassador of good will. By talking to groups of women like these she can help them all with hints on housekeeping with wax and at the same time pick up at least one good panel member.

Suppose we receive a letter in which Mrs. Housekeeper says your product has ruined her floors or made holes in her furniture. That sounds awful, doesn't it? But don't get excited, for women love to exaggerate. The floor isn't ruined—it just needs a good scrubbing before rewaxing; and the "holes" in the furniture become the open-grain which wasn't filled in during the finishing process. Women prefer another woman to a man in explaining such matters. Another point—she can see for herself that a woman can actually do the job—that it doesn't take the strength of a big man. Many of the women I have met have become my friends. We exchange recipes, they let me know when they have a new baby, when they buy a new car, and where they spend their vacations.

I know you have all seen many, many times the statement I am about to make. I almost hesitate to repeat it but it is so full of truth that I am sure the *Ladies' Home Journal* won't mind if I tell you: "Never underestimate the power of a woman." The woman's viewpoint in the household wax products industry is truly an important one. For if she doesn't like your product, she just isn't going to buy it.

Insecticides ..

(*From Page* 133)

fitted with the common slope of 5.07 the individual standard errors of slope were, respectively, 0.75, 0.57, 0.40, and 0.53. Therefore, the equations for the provisional parallel lines were determined and the generalization procedure was followed. The analysis of chi squares showed that the assumption of parallelism was justified but that a heterogeneity factor (7.51) had to be used for all variances. The generalized slope was 5.06 ± 0.29.

In the second series the slopes of the graphically fitted individual regression lines were obviously different. Therefore, the equations were determined by the statistical procedure for the individual lines. Heterogeneity factors were not required in the error estimations in this series.

The final equations for the lines showing the regression of mortality, expressed in probits, on concentration in milligrams per deciliter, expressed as logarithms, are as follows:

Series 1:

Diazinon $Y = 5.056\ X - 0.268$

21/199 $Y = 5.056\ X - 1.135$

L 13/59 $Y = 5.056\ X - 4.518$

Parathion $Y = 5.056\ X + 1.214$

Series 2:

Parathion $Y = 5.004\ X + 1.793$

Pyrethrins $Y = 3.082\ X - 2.474$

From these equations the median lethal concentrations (LC 50's) were calculated. Relative toxicity was calculated as the inverse ratio of LC 50's. The estimations together with their standard errors are given in table 1.

Diazinon, 21/199, and L 13/59 are, respectively, 0.51, 0.34, and 0.073 as toxic as parathion, and 31, 21, and four times as toxic as pyrethrins in space sprays to house flies. The estimate of the toxicity of parathion relative to that of pyrethrins agrees well with an earlier estimate of this ratio by the same method (Gersdorff and Mitlin 1950).

When compared with evaluations of the relative toxicity of other organic phosphorus compounds by this method, 21/199 is about as toxic as tetraethyl pyrophosphate (Gersdorff and Nelson 1948) and L 13/59 is about as toxic as hexaethyl tetraphosphate (loc. cit.) but a little more toxic than tetra-*n*-propyl dithionopyrophosphate (Gersdorff and Mitlin 1950).

Summary.—The relative toxicity to house flies of Diazinon [O,O-diethyl O-(2-isopropyl-4-methyl-6-pyrimidinyl) thiophosphate], Bayer 21/199 [O,O-diethyl O-(3-chloro-4-methylumbelliferone) thiophosphate], and Bayer L 13/59 (a dialkyl phosphonate) were determined by the Campbell turntable method. They were, respectively, 0.51, 0.34, and 0.073 as toxic as parathion and 31, 21, and four times as toxic as pyrethrins.

At the concentrations tested they caused no more than negligible knockdown of flies in 25 minutes.

Literature Cited

Gersdorff, W. A., and Norman Mitlin. 1950. Relative toxicity to house flies of tetra-*n*-propyl dithionopyrophosphate. *Jour. Econ. Ent.* 43(4): 562.

Gersdorff, W. A., and R. H. Nelson. 1948. Toxicity to house flies of three phosphorus acid esters. *Jour. Econ. Ent.* 41(2): 333.

Shellac Sends Floor Polish Sales Soaring!

Self-polishing floor waxes with high shellac content are setting new sales records because shellac imparts higher gloss, harder surface film and excellent anti-slip properties.

No floor polish of high shellac content can be any better than the wax-free bleached shellac from which it is made. If you have not made comparative tests lately, don't fail to try Zinsser's Refined Vac-Dry—a superior wax-free bleached shellac.

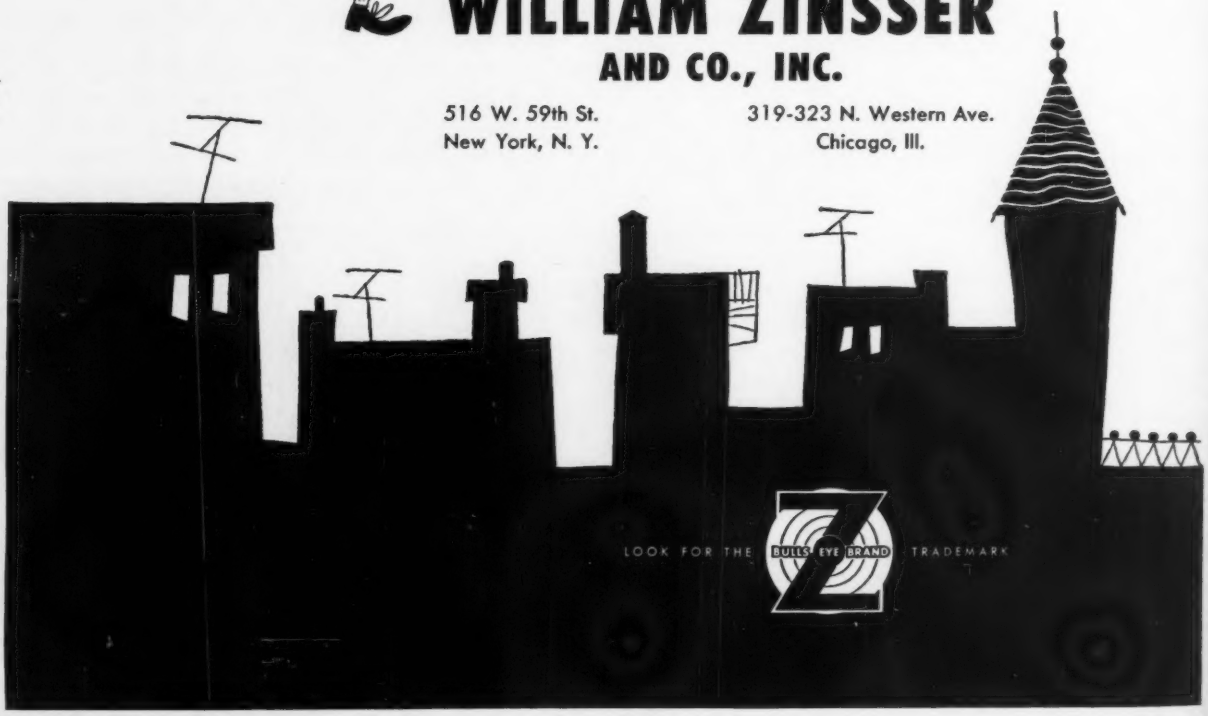
Refined Vac-Dry gives higher gloss, longer wear, better anti-slip and self-leveling properties. Extremely light in color, Refined Vac-Dry gives a lighter colored film. Its low acid value requires less alkali to go into solution, which means greater water resistance. It is readily soluble and unusually stable in aqueous solutions.

The superiority of Refined Wax-Free Vac-Dry is the result of bleaching only the best and most suitable Orange Lacs, combined with the experience William Zinsser & Co., has gained in 105 years of bleaching shellac. For further information, or for generous testing samples, write us on your company letterhead.

WILLIAM ZINSSER
AND CO., INC.

516 W. 59th St.
New York, N. Y.

319-323 N. Western Ave.
Chicago, Ill.



Canco Settles With CIO

Terms of a new contract signed by American Can Co., New York, with CIO Steelworkers on January 12 were published recently. The settlement ending a strike which began December 1, provides an 8.5 cents general wage increase, effective upon return to work. The new contract runs to October 1955 and covers approximately 20,000 employees.

—★—

New Fungicide Reported

Comirin, a new antibiotic which was discovered at the Microbiological Research Institute in Trinidad, B. W. I., exhibits fungicidal activity against ringworm, athlete's foot, and tropical ear. The new agent is now being studied with a view to use for industrial mildew control of leather, paper and foodstuffs. The National Research Development Corp. of England will control the eventual marketing of Comirin, it is reported.

Cost Survey

(*From Page* 132)

ature, actual samples, and related items being sold by the firm. If salesmen desire literature on certain items or samples, he can borrow it from one of the cabinets. By having such materials readily available to salesmen, they can have the necessary product information at all times before making calls. This helps indirectly to make better and quicker sales."

In addition, Galer & Hults pays for training courses that are offered by the National Sanitary Supply Association. This same course is likewise offered to any of the firm's customers, who appreciate the information they receive from Galer & Hults and it helps to build closer relations between them.

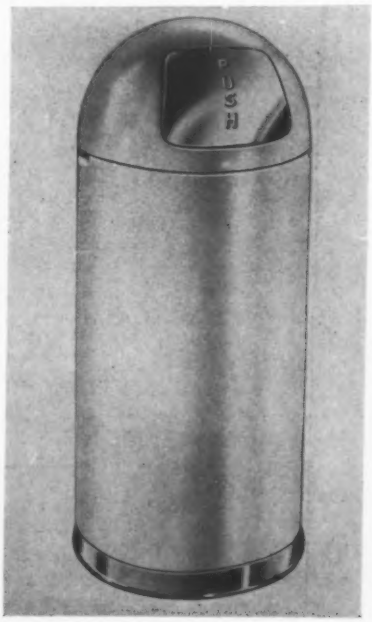
"Our customers appreciate the fact that they are given a diploma and title after they complete one of these courses," says Mr. Galer. "To many, this means more prestige and eventually a promotion and an increase in their salaries. Inasmuch as we bear the entire cost of this course, they are doubly appreciative of our efforts."

Consistent Advertiser

GALER & Hults backs up its sales activities with a program of constant and consistent advertising. Advertisements run regularly in all the local trade and business publications that reach the potential market of purchasers of their sanitary and maintenance supplies. Advertisements appear in such trade publications as the *Philadelphia Purchaser Magazine*, and other industrial papers. In addition, they have telephone listings under 10 classifications in the red book. Regardless of the type of supplies, or equipment a prospect may be seeking they are always sure to find the Galer & Hults name before them. This has been found to be one of their best means of acquainting new prospects with their company.

In addition, the firm puts out its own sales catalog covering products handled by them. This catalog is given to customers and other purchasers. They are not mailed out. Each time a catalog is given to a customer, the recipient's name is turned in to the office. These names are then used as a direct mailing list when certain promotional literature or other important sales information is being sent out. This makes up a list of live prospects and eliminates haphazard mailings.

Recently introduced round top waste receptacle of United Metal Box Co., New York, comes in colors with dome of chrome or all in chrome.



A 24-hour delivery service is maintained by the firm. All orders that are received by two o'clock of any afternoon will be delivered the following day. Such prompt delivery service has helped greatly to build up the firm's prestige among its customers.

Perpetual Inventory

THE firm maintains a perpetual inventory of every item that it handles. Inventory is kept on a visible file system that provides one card for every item handled by the firm. All cards are divided first into product classifications, such as waxes, floor polishes, detergents, soaps, galvanized ware, etc. They are then broken down alphabetically by manufacturers' names so that any card can be quickly found when it is needed.

"We keep on every inventory card, a minimum and a maximum balance of the materials on hand," Mr. Galer explains. "Then our purchasing agent always knows when we have to place an order for replenishment of stocks. In this way, we never run out of merchandise when it is needed, nor do we have too heavy an inventory at any time, should the sale of any particular item decrease."

"These cards are columnized with the receiving date, the amount on hand, amount withdrawn from stock, and price. Each day, as the salesmen's orders are filled, the materials to be shipped are deducted from the inventory card. When merchandise is received it is immediately posted to the card. So, at a glance, we can always tell where we stand on any item we sell."

These inventory records, going back five years, are permanently maintained by the firm. They have been found to be the best way of determining the purchases to be made of any of the items. By check-

ing through these cards the purchasing agent can determine the seasonal sales value of certain items and he knows when he should increase, or decrease, the amount of these particular items.

"On our fast-moving stock," says Mr. Galer, "we make a monthly inventory check. This is done to make sure that we always have on hand the amount of merchandise we need. Otherwise, our regular merchandise is checked on our regular inventory cards, which can be quickly gone through by the purchasing agent and notations made on the individual cards."

A note is made when the cards indicate that certain items have been slow in moving. At the usual Monday meetings, this is brought to the attention of the salesmen. It is first ascertained whether that particular item is either losing its usage value, or the salesmen are overlooking it in their sales program. In either case, a determination is made so that this item is discontinued or given an added stimulus to increase its sales volume.

"From time to time, there are certain items that lose their appeal for our customers," comments Mr. Galer, "and when that happens we determine if there is another item replacing it or if sales-push is lacking. As soon as we determine what the reason is, we know whether we should drop that item or run a promotion contest to stimulate its sale. In this way, we keep our inventory turning over constantly and, we can be sure that any merchandise we have on hand is selling."

Since the firm's inception, it has moved three times, each time to a larger location. At the present time it occupies a large, three-story building. The fast-moving merchandise is kept on the first floor, with the heavier and bulkier items in the basement, where they can be quickly shifted around by forklift trucks. Other merchandise is stocked on the 2nd and 3rd floors of this building. This lay-out speeds up the filling of customers' orders and also simplifies stock details when merchandise is shipped in.

News

Eichler Rejoins Prentiss

The appointment of William A. Eichler as midwest sales representative of Prentiss Drug & Chemical Co., New York, was announced recently by Prentiss in connection with the firm's expansion of its staff and activities in the midwest. Mr. Eichler is making his headquarters at the Prentiss Chicago office, 9 S. Clinton St.

William A. Eichler

An air Force veteran of World War II, Mr. Eichler started his career in the chemical industry with Prentiss in 1945 as a salesman. In 1948 he joined Velsicol Corp., Chicago, and was connected with that firm until he rejoined Prentiss last month.

—★—

Wax Men Visit Brazil

Two representatives of the Wax Importers & Refiners Assn. returned recently from a trip to Brazil, where they studied conditions in the carnauba wax producing centers and conferred with government officials on carnauba wax. R. E. Sievert of Frank B. Ross Co., Jersey City, N. J., president of the wax importers association and Alfred Drucklieb of Strohmeyer & Arpe, New York, and a member of the association's board of directors, left New York for Brazil by air Jan. 6. During the course of their trip they visited Belem, Parnahyba, Fortaleza, Salvador and Rio de Janeiro. There they met with government officials and representatives of the Brazilian wax producing industries to discuss the problems of exporting carnauba wax to the U. S.

—★—

Conco Acquires Sanco

The purchase of Sanco Industries, Inc., of Louisiana, Shreveport, by Conco Chemical Co., Dallas, was announced last month by Howard Litel, sales manager of Conco. All of the stock of Sanco has been purchased by Conco. Lacy E. Crain, president of Conco, becomes president of both firms. The seven salesmen now working for Sanco are being retained, as is the office manager in Shreveport. Sanco has been active in Louisiana, Arkansas, Mississippi, Alabama and East Texas. The firm will continue operations with considerable expansion into Texas and Oklahoma. All purchasing of both Conco and Sanco is being done through the general offices of Conco Chemical Co. in Dallas.

—★—

New Tesco Veeps

Three new vice-presidents were named by Tesco Chemicals, Inc., Atlanta, according to a recent announcement by T. E. Schneider, president. F. E. Cooper has been advanced to first vice-president and director of sales; W. S. Armistead, comptroller and T. E. Schneider, Jr., have been appointed vice-presidents.

—★—

Buys Insecticide Unit

The insecticide manufacturing equipment of Agricultural Chemical Co., Oklahoma City, recently was purchased by Nichols Seed Co., Jones, Okla. The equipment will be moved to the Nichols plant at Jones, and is expected to be in operation by mid-February. The equipment has a daily capacity of 20 tons of dust insecticide and 100 barrels of liquid pesticide. It employs 10 persons.

—★—

Beers Joins Bostwick

The appointment of Rudolph C. Beers, Jr., as plant manager of Bostwick Laboratories, Inc., Bridgeport aerosol firm, was announced recently by A. O. Samuels president. Previously Mr. Beers had been with Bridgeport Brass Co., Bridgeport, where he was production supervisor of aerosol dispensers.

R. C. Beers, Jr.

—★—

Joins Fitch Dustdown Co.

The appointment of Melvin R. McChesney as sales coordinator of Fitch Dustdown Co., Baltimore, was announced recently by T. Meredith Bonner, Jr., vice-president.

Prior to joining Fitch Dustdown Co., Mr. McChesney was technical service representative in the Washington, D. C., territory of Oakite Products, Inc., New York. He had been with Oakite for 10 years. Mr. McChesney attended Rutgers Extension School, Newark, N. J., where he studied salesmanship and business administration.

Fitch Dustdown Co. is celebrating its 50th anniversary this year. In addition to manufacturing sweeping compound, the firm handles floor brushes, mops, soaps, toilet tissue, disinfectants, drinking cups, insecticides, floor waxes and floor seals, and deodorants.

Joins Continental Filling

William H. Walker, formerly chief chemist and production manager for Lucien LeLong, Chicago, recently joined Continental Filling Corp., Danville, Ill., as plant manager of the Danville operation and head of the research department. Continental also operates an aerosol loading plant at Hobart, Ind.

At the same time Continental announced that Lew Selby has been advanced to the newly created assignment of assistant to the plant manager at Danville. For the past five years Mr. Selby has been personnel supervisor.

William H. Walker

Lew Selby

Rosenfeld Has Own Firm

Mitchell M. Rosenfeld, for the past 20 years general manager of United Sanitary Chemicals Co. of Baltimore, recently announced the opening of his own business under the name of Mitchell Chemicals and Paper Co., 610 N. Eutaw St., Baltimore 2, Md. The firm occupies a three story building, which has approximately 5,000 square feet of floor space. The firm sells a complete line of janitor supplies and paper products to institutions, industrial plants and schools. Mitchell Chemicals and Paper Co. is acting as distributor for over 20 nationally advertised brand products. The firm also conducts classes for cleaning and maintenance personnel, instructing them in the correct use of sanitary products.

—★—

New Windsor Wax Reps.

Windsor Wax Co., Hoboken, N. J., announced recently that it has appointed Floor Equipment Co., Fort Worth, Tex., as its representatives for the states of Texas, Louisiana, Oklahoma and Arkansas. C. G. Ingraham and R. H. Wright, who handled other lines in the sanitary supply industry, are the principles of Floor Equipment Co.

—★—

Parish Changes Name

Parish Broom and Brush Co., Syracuse, N. Y., recently changed its name to Parish Maintenance Supply Corp. John F. Cowmeadow is president and treasurer of the firm which continues to be located at 401 N. State St., Syracuse 3. Edward R. Apps is vice-president and secretary.

—★—

Chace to MCA

William E. Chace, for seven years director of information of the National Fertilizer Association, Washington, D. C., recently was appointed assistant public relations director for the Manufacturing Chemists' Association, William C. Foster, association president, announced late last month. In his new capacity, Mr. Chace assists Cleveland Lane, recently appointed assistant to the president of the Manufacturing Chemists' Association.

Merit Changes Name

Merit Supply Co., formerly in New Haven, Conn., recently announced a change in name and location. The firm is now known as Auburn Chemical Co., and has moved to Middletown, Conn.

—★—

Diversey Buys N.F. Interests

Diversey Corp., Chicago, announced recently that its Canadian affiliate, Diversey Corp. (Canada) Ltd., has purchased controlling interest in Sanitary Products, Ltd., St. Johns, Newfoundland. The firm is said to be Newfoundland's largest distributor of hotel and restaurant supplies and industrial and maintenance materials.

Diversey is building new warehouse space and new manufacturing facilities are contemplated, according to H. W. Kochs, chairman of the firm. Officers and executives of Sanitary Products continue in their present positions, with N. P. Maxwell as managing director.

—★—

New Aerosol Filler

A complete custom aerosol packaging service has recently been announced by McGuire & Co., 833-47th Ave., Oakland, Calif., to supplement its packaging service. New aerosol equipment, with expanded laboratory and plant facilities, permits the manufacturing and packaging of all types of aerosol products including insecticides, cosmetics and paints. In addition the firm has facilities for handling screw top and hermetically-sealed cans.

Specializing in private brand manufacturing and packaging for Western distribution, the addition of pressurized packaging to conventional facilities provides the West with complete service. Rail facilities, bulk storage, warehousing and product formulation complete the manufacturing packaging picture.

An ultimate investment in excess of $100,000 for the new aerosol filling program will feature the latest equipment supplied by Alpha Engineering & Machine Works of Chicago.

Heads Nat. Can Sales

John S. Morrison, formerly sales manager of the housewares division, was recently elected vice-

John S. Morrison

president in charge of sales of National Can Corp., New York, it was announced by Robert S. Solinsky, president. Mr. Morrison is in charge of all sales activities, coordinating sales promotion, marketing, sales training and advertising for all plant locations. Mr. Morrison began his business career with F. W. Woolworth Co., and later joined the sales division of Canada Dry Ginger Ale Co.

—★—

C. W. Bowden Dies

Charles W. Bowden, 77, retired sales director of Pennsylvania Salt Manufacturing Co., Philadelphia, died at his home in Wyndmoor, Pa., Jan. 15.

—★—

New Food Sanitation Group

A nationwide, cooperative educational program for improved food and beverage sanitation was evolved in a recent three-day meeting at Ann Arbor, Michigan, under the joint auspices of the National Sanitation Foundation, the National Restaurant Association, and the United States Public Health Service. The program will be implemented by a new voluntary organization to be known as the National Industry-Health Council on Food and Beverage Sanitation. The purpose and scope of the newly organized council was announced as "the development and promotion of agreed principles for the protection of health; the voluntary coordination of the efforts of industry, health agencies and the public in the betterment of food and beverage service and the environmental sanitation conditions surrounding such services in the home, at public and private establishments throughout the community."

—★—

Jr. Chamber Hears Schafer

Harold Schafer, president of Gold Seal Co., Bismarck, N. D., was the guest speaker, Jan. 12, at a bosses night dinner of the Junior Chamber of Commerce at the Hotel President, Kansas City, Mo. In his talk before about 250 persons, Mr. Schafer pointed out that the formula for business success varies with the individual and the times, but that there are certain rules that must be followed for financial achievement.

"The plan of action which made one man successful will not make you successful, because you can't repeat an idea of someone else," Mr. Schafer stated. "But there is a principle of successful selling which seldom has failed, and I believe you will find it in the history of every enterprise which has been a success," he added.

"You must learn how to sell something in a small area at a small profit. Once you can do that—then expand. Grow as much as you wish after you have mastered this basic lesson and it will be difficult for you to fail," Mr. Schafer said.

Mr. Schafer started in business for himself in 1942 at the age of 30. Six years later he was a millionaire. His firm sells more than $10 million worth of "Glass Wax" and other household chemical specialties a year.

—★—

American Dispenser Rep.

The appointment of Walter Lewis, 30 Circuit Road, Winthrop, Mass., as sales representative covering the New England area with its line of soap dispensers, was announced recently by Burton L. Feinson, general manager of American Dispenser Co., New York.

Loeffler FMC Vice-Pres.

The appointment of Alfred T. Loeffler as vice-president of the chemical divisions of Food Ma-

Alfred T. Loeffler

chinery and Chemical Corp., New York, was announced late last month by Ernest Hart, executive vice-president. Mr. Loeffler joined Food Machinery and Chemical Corp., as assistant vice-president in August, 1953.

Following his graduation from the University of Rochester, Mr. Loeffler joined Hooker Electrochemical Co., Niagara Falls, N. Y. Subsequently he served with Monsanto Chemical Co., St. Louis, in various capacities including general branch manager in New York and director of development of the organic chemical division in St. Louis. In 1951, on leave from Monsanto, he became Chief, Chemical Branch, Office of Price Stabilization, Washington, D. C.

Mr. Loeffler reports to Mr. Hart and continues to be located at Food Machinery and Chemical Corp's New York office at 161 E. 42nd St.

—★—

Voids Bostwick Petition

Petition of Bostwick Laboratories, Inc., Bridgeport, Conn., for review of an FTC order prohibiting misrepresentation of insecticides was dismissed by the U. S. Court of Appeals for the Second Circuit (New York). The petition was dismissed pursuant to stipulation of the parties after Bostwick abandoned prosecution of the appeal.

Crown Can Merger

The merger of all wholly owned domestic subsidiary corporations, including Crown Can Co., Philadelphia, with Crown Cork & Seal Co., Baltimore, was announced recently by John J. Nagle, chairman and president of the parent corporation. Crown Can Co. will now be known as Crown Can Division.

George W. Crabtree

George W. Crabtree, former vice-president in charge of manufacturing of Crown Can Co., has been elected vice-president of Crown Cork & Seal Co., and is acting as general manager of Crown Can Division. Everett B. Webster, former executive vice-president of Crown Can Co., has been appointed division administrative vice-president of the Crown Can Division. There have been no changes in personnel of the division as a result of the merger, according to Mr. Nagle.

—★—

Monsanto Elevates Two

Monsanto Chemical Co., St. Louis, appointed Michael H. Sloman as director of promotion for the merchandising division and R. Allan Gardner as sales manager for the division's agricultural products and surface coatings, it was announced recently by Roy L. Brandenburger, vice president of the company and general manager of the merchandising division.

Mr. Sloman comes to his post from the newspaper and advertising fields. Mr. Gardner joined Monsanto in 1944, became assistant advertising director in 1947, and was appointed advertising and sales promotion manager for the merchandising division in 1952.

—★—

Pennsalt Appoints Aepli

Otto T. Aepli has been advanced from assistant to chief chemist of the Wyandotte, Mich., plant of Pennsylvania Salt Manufacturing Co., Philadelphia. He succeeds Earl Sweetland, who has retired. Mr. Aepli joined Pennsalt in 1944 and worked as senior research chemist at the company's Whitemarsh Laboratories in Wyndmoor, Pa., until 1951, when he went to Wyandotte. He received his B.S. degree from the University of Pennsylvania and a master's degree from Temple University.

—★—

Pival Sent to Philippines

The purchase of 46,200 pounds of "Pival" rodenticide concentrate by the Philippine government under the Mutual Security Program was reported recently. This anti-coagulant rodenticide is a product of Motomco, Inc., New York, and will be used by the Philippine authorities in a crop protection campaign. Apart from its rodenticidal properties, "Pival is said to impart to cereal baits resistance to both insect infestation and the onset of mold.

—★—

Am. Can Advances Three

Appointment of R. B. Thompson as assistant general manager of manufacture for American Can Co., New York, was announced recently by G. W. Reese, general manager of manufacturing. Mr. Thompson, previously manager of manufacture for the Atlantic division, has been with the firm for 31 years.

Mr. Thompson is succeeded by A. de Genaro, formerly assistant manager of manufacture for the Atlantic division, who joined Canco in 1925 as a timekeeper.

Mr. de Genaro's previous post went to J. C. Souhan, who was an assistant to the general manager of manufacture.

New Geerpres Mop Unit

A new twin tank mopping outfit called the "Floor-Knight" and designed to accomodate smaller size

mops (from eight to 16 ounces) was announced recently by Geerpres Wringer, Inc., Muskegon, Mich. Previously available only as a single tank outfit, the "Floor-Knight" model 816 twin outfit embodies all of the features of the other Geerpres twin outfits, including new type of side and gear cover which completely encloses the wringer gearing and adds greatly to mop life.

Water in mops is squeezed down and out by means of pressure bars spun at both ends into the double-staggered gears of the wringers on every Geerpres mopping outfit. Mops slide easily and naturally, without tearing, in and out of the wringer, protected against contact with any moving parts except the pressure plates.

Both the wringer and chassis on the "Floor-Knight" twin tank outfit have electroplated finishes. The chassis is 25 inches long and 12 inches wide. It is equipped with 2½ inch ball bearing casters with soft rubber wheels and is available with or without rubber bumpers.

—★—

Bostwick Names Gordon

Fred L. Gordon was appointed recently as advertising and sales promotion manager of Bostwick Laboratories, Inc., Bridgeport, Conn., aerosol producers.

tion, abolition of the pressor response to nicotine with retention of the direct cardio-vascular effect of epinephrine would indicate ganglionic blockade. Using this method it was found that both "Hyamines" almost completely blocked sympathetic ganglia in a dose of 2 mgm./kgm. An example of this effect is shown in Figure 4. In the case of "Hyamine 1622" this effect persisted for about 5 hours in 2 of the 4 dogs to which it was administered. The duration of blockade with "Hyamine 2389" was 2-3 hours. In a dose of 1 mgm./kgm. of either agent, blockade is less complete and of shorter duration. Intravenous administration of either "Hyamine" in the 2 mgm./kgm. dosage is accompanied by a sharp but transient fall in blood pressure; with larger doses (4 mgm./kgm.) death ensues.

Irritant Effects on the Rabbit Eye:

THE irritating potency of various concentrations of both Hyamines was studied by instilling several drops in the rabbit eye and observing the conjunctival mucosa at intervals thereafter. The object of the experiment was to determine the concentration which would just produce perceptible irritation in the form of erythema and below which this did not occur. Five animals were used at each concentration. With Hyamine 1622 this concentration lay between 0.01 and 0.03 per cent, and with "Hyamine 2389" between 0.03 and 0.1 per cent.

Local and Systemic Effects of Daily Application to the Skin of the Rabbit:

SIX albino rabbits were used for each compound. The hair was closely clipped from the back and sides from the base of the neck to the hind legs. To one group 2 ml. of 0.1 per cent "Hyamine 1622" was applied to the clipped area once daily, 5 days a week for 4 weeks.

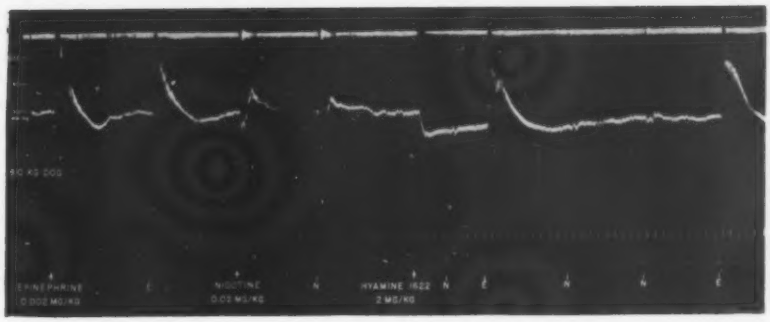


Figure 4

The other group received 0.05 per cent "Hyamine 2389" on the same schedule. No signs of skin irritation or of systemic effects were observed. At the end of the treatment period the animals were sacrificed and skin and other tissues (as listed above for rats) submitted to histopathologic examination. No gross or microscopic abnormalities were found.

Skin Irritation and Sensitization Produced by Hyamine 2389 in Man:

TWO separate patch test experiments were done on 50 human subjects each to determine the irritant properties of "Hyamine 2389." In all cases the material was applied by saturating a one-quarter inch square of cotton cloth with the solution and placing this on the volar surface of the forearm. This, in turn, was covered with a 1 inch square of cellophane that was held in place with a 2 inch square of adhesive tape. The patches were left in place for 48 hours, and on removal the area under each patch was examined for signs of irritation.

The first of these experiments was designed to investigate both primary irritation and the possibility of sensitization. Forty-two subjects received 50 per cent solutions and 8 received 10 per cent solutions. In the higher concentration 10 individuals showed positive reactions, which in most cases took the form of mild erythema. However, in 1 instance such severe erythema and weeping edema was seen as to discourage the further use of this individual as a subject. In the subjects receiving 10 per cent solutions, 2 positive reactions were seen and both of these were of a mild nature.

Two weeks later 49 of the subjects were repatched on the other arm with a 10 per cent solution of "Hyamine 2389," the purpose being to determine the possibility of sensitization to the compound. In those individuals who had originally received the 50 per cent solutions there were 13 positive reactions and none of these was a severe response. In those originally receiving 10 per cent, the second application produced one mild positive reaction. It was concluded that these reactions represented primary irritation and not sensitization.

A second experiment was done to determine whether or not lower concentrations of "Hyamine 2389" would produce primary irritation. A second patch for testing sensitization was not applied. To the forearms of 50 additional subjects 4 patches were applied. The cotton squares were saturated with 3, 1 and 0.02 per cent solutions of Hyamine 2389; water was used on the fourth patch as a control. When the patches were removed 48 hours later no evidence of irritation could be seen in any of the areas.

Discussion:

THE data presented define rather clearly the nature of the toxicological characteristics of these two quaternary ammonium bactericides. Some conclusions can be drawn, based on these characteristics, as to the safety of these products for the various uses detailed earlier in the report.

1. The use of concentrations of 200 ppm employed in sanitization of restaurant utensils and dishes, food handling equipment, etc., represents no hazard from an acute toxicity standpoint, from the standpoint of irritation to the hands, and from the standpoint of skin absorption. This is important in that dishwashers and similar workers have occasion to keep their hands immersed in the sanitizing solution over long periods of time and at frequent intervals.
2. Concentrated material, although representing no major hazard, does require the normal care in manufacture in the plant, and it is indicated that skin contact should be avoided, and steps should be taken to prevent splashing into the eye. When the material is brought into contact with either the skin or the eye, the affected parts should be washed immediately.

3. The introduction of quaternary ammonium germicides, either willfully or accidentally to food products is unlawful but it is consequential and comforting to know from the chronic toxicity data that there is no hazard involved should such adulteration take place. It was indicated earlier in this report that less than 1 ppm of quaternary could be recovered from glass tumblers sanitized with a 200 ppm solution of quaternary. It is doubtful that in normal plant practice more than this amount could be picked up from plant equipment which had not been properly rinsed with fresh water. The willful addition of quaternary to food in substantial amounts would be readily detected because of taste problems. Various studies have been made by workers in this field and it is the general consensus that the bitter and astringent taste of quaternaries is readily discernible in food products when as little as 10 to 20 ppm are added.

References

Alfredson, B. V., Stiefel, J. R., Thorp, F. Jr., Baten, W. D. and Gray, M. L.: *J. Am. Pharm. A.* (Scient. Ed.)., 40:263, 1951.

Finnegan, J. K., Larson, P. S., Smith, R. B., Jr., Haag, H. B. Reid, J. D. and Dreyfuss, M. L.: *Fed. Proc.*, 11:345, 1952.

Fitzhugh, O. G. and Nelson, A. A.: *J. Am. Pharm. A.* (Scient. Ed.), 37:29, 1948.

Harshbarger, K. E.: *J. Dairy Sci.*, 25:169, 1942.

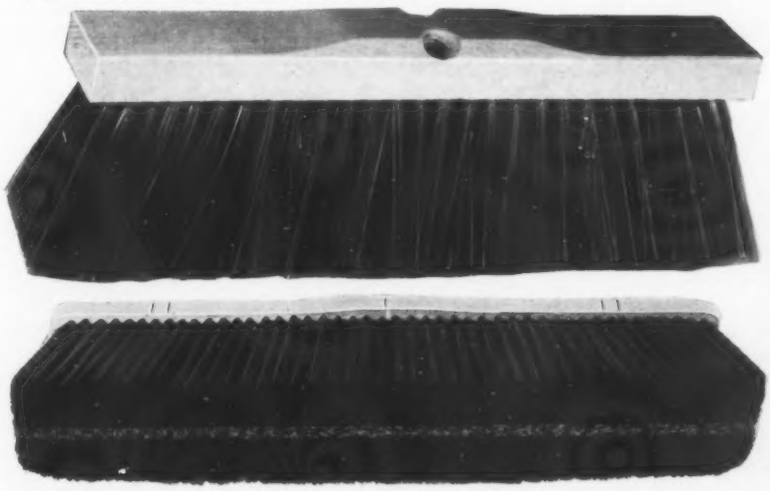
Shelanski, H. A.: *Soap Sanit. Chem.*, 25:125, 1949.

Snedecor, G. W.: "Statistical Methods," Iowa State College Press, Ames, 4th Ed., 1946.

Woodard, G. and Calvary, H. O.: *Proc. Scient. Sec. Toilet Goods Assoc.*, No. 3, 1945.

Two new brushes introduced recently by Moran Brush Manufacturing Co., Hamden, Conn., are: top, the "Atlas Garage Brush," and, below, "Wyrette Floor Brusn." The garage brush is made of heavy gauge "Algil" plastic, which is not affected by gasoline, kerosene or oil. It may be used on wet or dry surfaces. It also doubles as a snow brush. The garage brush is available in sizes from 14 to 36 inches.

The "Wyrette" is a brush designed especially for factory use. It is constructed with a middle row of bright tempered steel wire for removing heavily caked dirt. Four surrounding rows of stiff black Tampico take care of medium dirt and a casing of horse hair and "Saran" mixture removes fine dust. This brush may be used on any concrete, cement, brick or uneven wood floor.



Guy Robbins Dies

Guy P. Robbins, 69, president of George B. Robbins Disinfectant Co., Cambridge, Mass., died after a lingering illness, Dec. 16. He is a past eastern regional vice-president of the National Sanitary Supply Association.

In addition to his widow, Donna, Mr. Robbins is survived by his son, Paul, who is connected with George B. Robbins Co., and a daughter.

Diatomite . . .

(*From Page* 145)

moval of surface finish and also because of its good suspension qualities due to extreme fineness and relatively light density. For a badly chalked surface, abrasive action may not be as rapid as desired and a coarser and harder grade of diatomite can be used for more rapid results.

Modern cleaner and polish formulations are designed either to maintain the diatomite permanently in suspension in a semi-gel-like liquid or if permitting the diatomite to settle out wholly or partially on standing, cause it to form a soft flocculated settled portion which is resuspended readily on shaking. The amount of diatomite used is in the range of 10 to 20 per cent, usually about 15 per cent. Composition of the liquid and amount and type of cleaning and dispersing agents also are very important in their effect on efficiency and satisfactory application qualities.

In the past 30-year period, during which diatomite automobile polish abrasives have been widely used, important improvements in the diatomite products have been made for better performance just as improvements have been made in this same period in the formulation of automobile cleaners and polishes. The efficient products available today make the task of automobile finish maintenance easier and more satisfactory than in the past as well as prolonging the effective life and better preserving the good appearance of modern finishes.

PROFESSIONAL *Directory*

CLASSIFIED

Classified Advertising — All classified advertisements will be charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap & Sanitary Chemicals*, 254 West 31st St., New York 1.

Position Open

Salesman: to sell miniature guest soap to janitor, institutional and hotel jobbing trade. "Wrapped and unwrapped." Low prices. State territories, & trade items you now sell. Address Box 127, c/o *Soap*.

Chemist: With at least 5 years experience in manufacturing buffing and polishing compounds. Must know abrasives, greases and kindred raw materials. Exceptional opportunity in profit sharing plan. We are well established in our industry. Address Box 129, c/o *Soap*.

Huntington Laboratories, Inc. has a sales opening in the South—Exclusive institutional territory—sanitation and maintenance specialties. Write particulars and selling experience. Huntington, Indiana

Position Open

Wanted: Man capable of taking full charge of plant in South, manufacturing line of soaps, detergents and industrial cleaners. Must be experience and have good references. Excellent opportunity. Address Box 150, c/o *Soap*.

Announcement: Completely new, up-to-date book, HANDBOOK of PEST CONTROL by Mallis, ready for sale April 1.

Sales Manager: To handle sales of fatty acids and derivatives including supervision of 10 or more salesmen and jobbers. Eastern location. Travel 50% of time—mostly in northeast quarter of U. S. Age 35-50. Prefer training in chemical engineering and experience in sales of fatty acids and derivatives. Excellent opportunity—Send compete resume to Box 130, c/o *Soap*.

Chemist: Production and plant superintendent. Established California company has opening for experienced man to formulate and manage production. Powdered and liquid cleaning compounds, automotive and other chemical specialties. Send full details of education and experience. All information will be held in strict confidence. Real opportunity for right individual. Continental Chemical Co., North Sacramento, California.

Agents Wanted: AAA-1 Southern manufacturer desires agents in southeastern states calling on sanitary maintenance dealers. Single quality line of liquid soaps, waxes and disinfectants. Must be anxious to give service. State experience, other lines, territory now handling and frequency of calls. Address Box 131, c/o *Soap*.

Situations Wanted

Development Specialist: Product & Market development specialist experienced in formulation, laboratory and field testing and commercial use of liquid and dry pesticides and related products. Familiar with agricultural, sanitary, structural and livestock insect pest control and with weed, rodent and mosquito control work. Widely acquainted in the industry and in state and federal research agencies. Prefer research and development but willing and qualified to accept responsiblity in marketing. Address Box 132, c/o *Soap*.

Chemist: With extensive experience in soaps and chemical specialties, seeks position as supervisor in manufacturing dept., purchasing or public relations. Address Box 134, c/o *Soap*.

Detergent Chemist: B.S. Seven years experience includes research, preparation of anionic and nonionic surfactants, formulation industrial cleaning specialties (alkaline cleaners and detergent based cleaning compounds), technical service, analyst, and product evaluation. Desire position N. Y. Metropolitan area or vicinity. Address Box 135, c/o *Soap*.

Situations Wanted

Experienced Chemist: Will do your library research, prepare technical or economic reports, any subject. Moderate rates, will quote. Address Box 133, c/o *Soap*.

Chemist: Household products widely experienced in waxes, polishes, lacquers, adhesives, emulsions, also automotive chemicals, desires connection with progressive firm. Metropolitan area preferred. Address Box 136, c/o *Soap*.

Soapmaker & Chemist: Competent. Having long experience in making of all kinds of soaps and cleaning compounds. Experienced chemist and glycerine recovery. Can take full charge of production. Address Box 137, c/o *Soap*.

Soap Plant Manager: Experienced sup't. or plant manager available for new connection in soap industry. Twenty years' practical soap manufacturing experience. Can take full charge. For full details, write to Box 138, c/o *Soap*.

Advertising Manager: 27 years experience. Lots to offer progressive firm. Prefer New York City, but willing to relocate. Age: 45, married. Address Box 142, c/o *Soap*.

Sales: B. S. chemistry, 28, five years experience in chemical sales. Midwestern representative of large prime manufacturer of textile chemicals, surface active agents, and detergents. Contacts in varied fields. Looking for position with greater opportunities, not necessarily in same chemical line. Will travel. Prefer N.Y.C. or vicinity as base. Present salary $8,000-$10,000. Address Box 139, c/o *Soap*.

Situations Wanted

Mech. & Ind. Engineer: Mechanical and industrial engineer desires executive position with reliable and progressive firm. Experience:— 5 years plant engineering, one year factory construction, 15 years supt. large private brand toilet soap Co. 5 years manufacturing and selling complete line soap making equipment. Address Box 140, c/o *Soap*.

Chemist: Group leader, M.S., 33, ten years emulsion experience, especially household, maintenance, bid waxes, auto polishes, emulsifiers, synthetic detergents, polyvinyl acetate. Experienced research, development, production. Desires responsible position. Address Box 141, c/o *Soap*.

Midwest Representative: Over 20 years experience selling aromatic chemicals, perfume compounds, essential oils and related chemicals. Present connection not satisfactory and would like to make a change. Address Box 143, c/o *Soap*.

Sanitary Chemist: Experienced and personable, with research, development and production know-how. Versed in sales and trouble shooting, plus management operation. New York State location desirable. Salary $5,500. Address Box 144, c/o *Soap*.

Salesman: Over five years experience selling basic insecticide materials to compounders, repackers, custom sprayers, etc. Knows buyers and is well known in trade. Good sales record, best references. Desires connection progressive manufacturer with future possibilities. Address Box 145, c/o *Soap*.

Miscellaneous

Wanted: Complete soap or process chemical plants and machinery including kettles, frames, pulverizers, cooling rolls, chip dryers, plodders, cutting tables, evaporators, packaging units, automatic soap presses, mixers, stainless steel tanks. P. O. Box 1351, Church St. Sta., New York 8, N. Y.

Wanted To Buy: Toiletries, cosmetics or packaged drugs business. One of our clients wishes to purchase outright or buy the controlling stock of an established company manufacturing and distributing toiletries, cosmetics or packaged drugs. The company may be small, medium or large. Its operation may be profitable, or if unprofitable it should have business potential that can be revived and improved by energetic merchandising. Write to Mr. Straus giving a brief description of your products and the present operation of your company. All negotiations will be handled in strict confidence. Ovesey, Berlow & Straus, Inc., 57 Park Avenue, New York 16, N. Y.

Wax Process: Should like to hear from a well financed company, interested in the separation of waxes (vegetable and oxidized microcrystalline) into their components: Acids, alcohols, esters, resins by a novel simplified process. Address Andr. Treffler, 405 East National Ave., Brazil, Indiana.

Wanted: The following back copies are needed to complete our file: — January and June 1951 — February, March, April, July and December 1952 — Please communicate with Mr. T. E. Schneider, Jr., Texco Chemicals Co., P. O. Box 173, Station C, Atlanta 5, Georgia.

For Sale

More Money for Jobbers: Bionetic—proven by industrial and municipal waste treatment technologists. Used by hotels, resorts, institutions, and cities. Cleans Septic tanks and cesspools. Eliminates odor. Clean grease traps. National and local co-operative advertising to assist you. Write Reliance Chemicals Corp., P. O. Box 6724, Houston 5, Texas.

For Sale: Complete soap or sanitary chemical plants. Also individual items such as crutchers, plodders, mills, mixers, presses, dryers, filling equipment, etc. R. Gelb & Sons, Inc., State Highway No. 29, Union, N. J.

For Sale: Soap dispensers for waterless, cream, paste—porcelain enameled—heavy construction—10 pound capacity. National Soap Dispenser, 10216 L. Salle Ave., Los Angeles 47, Calif.

Dust Absorber chemical for treating dust cloths and dust mops. Contains no oil or solvent; does not stain or smear. Safe to use on asphalt tile or waxed floors. Parlee Corp., 308-310 E. St. Clair, Indianapolis, Ind.

Exclusive Franchise: Complete repellent action insecticide against flies and mosquitoes up to 56 days, even with the doors open, kills all insects for a long time. Address Box 146, c/o *Soap*.

For Sale: By I. E. Newman, 5602 Blackstone Ave. Chicago, Ill. Jones automatic laundry & toilet soap presses; 1500 lb. to 6000 lb. crutchers; 10″ plodder; Automatic cutting table; Type S wrapper; Filter presses; Powder mixers, etc.

For Sale: Attractive opportunity to purchase an old established soap and sanitary manufacturing plant in the middle west with average annual sales of $185,000. upwards. Includes chips, powders, bars, liquids, jellys, pastes, disinfectants. Address Box 147 c/o *Soap*.

Stainless Steel tanks and kettles. Steel tanks and kettles; crutchers; powder mixers; pulverizers, etc. Perry Equipment Corp., 1410 N. 6th St., Philadelphia 22, Pa.

Sanitary Chemicals, new, up-to-date book, See page 28.

For Sale

For Sale: For personal reasons, I find it necessary to sell a profitable sanitary supply business located in a good, thriving Southern city. Average annual sales volume over $200,000. This is a nice clean business and offers a wonderful opportunity for the right party. Address Box 148, c/o *Soap*.

For Sale: Formula for attractive liquid household detergent $1500. Free samples on request. Also have two waterless hand cleaner formulas $500. Apache Chemical Company, Box 1522, Midland, Tex.

For Sale: 500 gallon steam jacketed steam kettle, mild steel with cover, new condition, bottom and side outlets. Pharmakon, Inc., 4320 So. Dupont Ave., Minneapolis 9, Minn.

For Sale: Small janitor supply business. Established three years same location. Good volume—established accounts — trained personnel — respectable profit. Excellent service department (scrubbing, waxing, polishing & sealing floors—rug cleaning — window cleaning). Reason for selling — illness in family. Price reasonable. Located West Coast of Florida. Ideal for salesman or manager going out for themselves; semi-retired person or large company interested in Florida outlet. Address Box 149, c/o *Soap*.

Reprints Synthetic Detergents Up-To-Date II available from Mr. J. W. McCutcheon, 475 Fifth Ave., N. Y. C.

For Sale: Allbright-Nell 4′ x 9′ chilling rolls. Blanchard #14 soap powder mill. Lehmann 4-foll W. C. 12″ x 36″ steel mill. Houchin 8½″ x 16″ 3-roll and 18″ x 30″ 4-roll Granite Stone Mills. Kettles and tanks, iron, copper, aluminum and stainless. Dryers vac. & atmos. Jones automatic soap presses. Empire State foot presses. Soap frames. Slabbers and cutting tables, hand & power. Crutchers. Six-knife chipper. Filter presses 12″ x 42″. Wrapping & sealing machines. Powder, paste & liquid mixers. Rotex sifters. Filling machines, Grinders, Hammer mills. Colloid mills. Three-roll steel mills 8″ x 22″ to 16″ x 40″. Portable elec. agitators, pumps, etc. Send for bulletin. We buy your surplus equipment. Stein Equipment Company, 107—8th St. Brooklyn 15, N. Y. STerling 8-1944.

For Sale

For Sale: Automatic germicide, detergent or hypochloride dispensers. Original price $8.95. Have dies, molds and tools. Over 5,000; 2500 assembled. Send $2. for sample. Will sell complete for reasonable offer. Thoro Chemical Co., 14831 Bessemer St., Van Nuys, Cal.

For Sale: 1—Houchin 10″ jumbo plodder; 1—Pneumatic Scale Packaging line complete: 1—Lehmann 12″ Plodder; 1—Houchin 14″ x 36″ 5-roll inclined watercooled mill, 30 H.P. motor; 4—Jones automatic soap presses, A. B. K & C pin die; 1—4 roll 18 x 30 granite mill; 2 Package Machinery Co. model TT and model N soap wrappers; 5—Steel vertical, jacketed soap crutchers, 5,000 lb., 3,000 lb., and 1000 lb.; Filter presses 12″ to 42″, powder fillers; dry powder mixers, 12,000 lbs., 3,000 lb. and smaller sizes; paste and liquid mixers; Rotex screens; Hammer mills; soap frames; Dopp jacketed kettles; Pumps; tanks; carton gluer-sealers. Ask us to quote on your requirements. Tell us what idle machines or plants you have for sale. Consolidated Products Co., Inc., Observer Highway & Bloomfield St., Hoboken, New Jersey. Tel: HO 3-4425. N. Y. tel: BA 7-0600.

Relocate on Coast

Pacific Chemical Consultants announced last month that they had moved into new laboratories at 14203 Bessemer St., Van Nuys, Calif. In addition, the firm announced that environmental testing facilities are now in the course of construction. The firm specializes in the fields of water analysis, general chemical analysis and industrial research.

— ★ —

Jennings Advanced by CCC

Appointment of John C. Jennings as product sales manager of plastic bottles was announced recently by E. F. Burke, sales manager of Shellmar-Betner Flexible packaging division of Continental Can Co., New York. The plastic bottles are manufactured by the Elmer E. Mills Corp., recently acquired subsidiary of Continental Can. Mr. Jennings has been with the company since 1946.

Mass-Produces Spray Cans

American Can Co., New York, has completed expansion of its can-making equipment for the mass-production of pressure containers to handle virtually all of the popular valves, for any type of product that sprays, mists, or foams, according to a recent announcement by D. B. Craver, vice president in charge of sales. As in the production of other types of metal containers, the firm's design of pressure cans is based on the principle of economical high-speed manufacture on standard can-making equipment, said Mr. Craver. This method of full-scale production is felt to be an important requisite to this rapidly growing industry which is expected to use more than 130 million pressure containers this year.

Canco's pressure container is currently available in two diameters, 202 and 211. The most frequently used sizes, the firm states, are the six ounce (202 x 406) and the 12 ounce (211 x 413). In each diameter there is a wide variety of top-end profiles, either concave or convex, each one designed to accommodate a specific valve which is selected by the customer to suit his particular product.

—★—

Atlas Advances Two

Appointment of William H. Erwin as international division director in the industrial chemicals department of Atlas Powder Co., Wilmington, Del., was announced recently. Mr. Erwin has been with Atlas since 1939. He previously headed chemical sales in the firm's Wilmington district, in which post he is now being succeeded by Harry B. Paul.

—★—

U.S.I. Offers Intermediates

Availability of five chemical intermediates from the production of allethrin at its new Baltimore plant was announced recently by U.S. Industrial Chemicals Co., Division of National Distillers Products Corp., New York. The compounds are believed to have possible use for the synthesis of fungicides, insecticides, perfumes, and other fine chemicals. They are allyl acetone; 2,5-dimethylhexane-2,5-diol; 2,5 - dimethyl - 2,4 - hexadiene; ethyl - a - allylaceto-acetate; and ethyl diazoacetate derivatives.

—★—

Wallace & Tiernan Merger

Wallace & Tiernan Co., Belleville N. J., and Novadel-Agene, Buffalo, N. Y., merged into a single organization known as Wallace & Tiernan, Inc., it was announced recently. Subsidiaries include W. C. Hardesty, Richmond Mfg. Co., Thomson Machine Co., Electro Rust-Proofing, and Wallace & Tiernan, Ltd.

—★—

Carbide Cuts Amine Prices

Price reductions of 5¼ cents per pound for diisopropanolamine and 6 cents per pound for triisopropanolamine were announced recently by Carbide & Carbon Chemicals Co., Division of Union Carbide and Carbon Corp., New York. Current prices in the eastern territory (east of Idaho, Utah, and Arizona), per pound, run as follows for diisopropanolamine; tank car lots, 22 cents; carload lots, drums, 24 cents; l.c.l., drums, 25 cents; and for triisopropanolamine: tank car lots, 23 cents; c.l., drums, 25 cents; and l.c.l., drums, 26 cents. All shipments of 55-gallon drums or more are f.o.b. delivery point of rail carrier nearest point of destination. Prices in the western territory are one cent per pound higher.

Dr. Daniel L. Brophy, below, was recently named to represent Banco Nacional De Comercia Exterior, S. A., Mexico City, Mexico, for the import of candelilla wax to the U. S.

Index to ADVERTISERS

Amaza Laboratories, Inc. 182
American Dispenser Co. 184
American Standard Mfg. Co. 170
A-M-R Chemical Co. 168
Andersen, Carl N. 177
Archer-Daniels-Midland Co. 27
Armour & Co. 92
Aromatic Products, Inc. 71
Atlantic Refining Co. 79
Atlas Powder Co. 21

Baird & McGuire, Inc. 128
Bersworth Chemical Co. 100
Blockson Chemical Co. 15
Bobrick Mfg. Co. 62
Breuer Electric Mfg. Co. 22
Buckingham Wax Co. 174
Buffalo Electro-Chemical Co. 68
Bush & Co., W. J. 172

California Spray-Chemical Co. 152
Candy & Co. 4
Chemical Service of Baltimore 25
Columbia-Southern Chemical Corp. 174
Continental Can Co. 52
Continental Filling Corp. 158
Cowles Chemical Co. 29
Cox, Dr. Alvin J. 177
Crown Cork & Seal Co., Inc., Crown Can Div. 118

Davies-Young Soap Co. 162
Diehl & Co., William 182
Dill Mfg. Co. 117
Dodge & Olcott, Inc. 64
Dominion Products, Inc. 176
Drew & Co., E. F. 182
Dreyer, Inc., P. R. 26
du Pont de Nemours & Co., E. I. 73, 111
Dura Commodities, Inc. 170

Emery Industries, Inc. 86

Federal Varnish Div. 156
Felton Chemical Co. 154
Fine Organics, Inc. 162
Florasynth Laboratories 142
Fritzsche Brothers, Inc. 56
Fuld Brothers, Inc. 3

Geigy Chemical Corp. 146
General Chemical Div., Allied Chemical & Dye Corp. 51
Gesell, Inc., R. 174
Gillespie-Rogers-Pyatt Co. 150
Givaudan-Delawanna, Inc. Betw'n 66 & 67, 123
Goodrich Chemical Co., B. F. 113
Gross & Co., A. 72

Hardesty Co., W. C. ..... Facing 66
Haviland Corp., Warren 182
Hercules Powder Co. 108
Hochstadter Laboratories, Inc. 177
Hollingshead Corp., R. M. 148
Hooker Electrochemical Co. 155
Houchin Machinery Co. 84
Hudson Laboratories, Inc. 177
Hysan Products Co. 7

International Minerals & Chemical Corp. 66

Johns-Manville 144

Kroner Laboratories, Inc. 177

Lancaster, Allwine & Rommel 177
Leeben Chemical Co. 186
Lehmann Co., J. M. 90
Lewers, W. W. 177

Magnus, Mabee & Reynard, Inc. 125
Mantrose Corp. 127
Maryland Glass Corp. ..... Facing 18
McCutcheon, J. W. 177
McDonnell, C. C. 177
McGlaughlin Gormley King Co. 112
Meccaniche Moderne 96
Molnar Laboratories 177
Monsanto Chemical Co. 24, 70
Moore Brothers Co. 100

National Aniline Division 60
Neuman, Buslee & Wolfe, Inc. 176
Newman Tallow & Soap Machinery Co. 178
Newport Industries, Inc. 104
Niagara Alkali Co. 30
Ninol Laboratories 19
Norda Essential Oil & Chemical Co. 83

O'Donnell, James P. 177
Oil Equipment Laboratories, Inc. 174
Old Empire Mfg. Chemists, Inc. 180
Onyx Oil & Chemical Co. 8, 9
Orbis Products Corp. 114
Oronite Chemical Co. 18
Owens-Illinois Glass Co. 58

Packwood Mfg. Co., G. H. 13
Paul & Stein Brothers, Inc., F. H. 187
Peck's Products Co. 17
Penick & Co., S. B. 116
Pennsylvania Refining Co. 180
Perrow Chemical Co. 186
Perry Brothers, Inc. 164
Petrolite Corp. 172
Philadelphia Quartz Co. ..... Facing 57
Plax Corp. 50

Polak & Schwarz, Inc. 6
Polak's Frutal Works 53
Precision Valve Corp. 140
Procter & Gamble, Inc. 14
Proctor & Schwartz, Inc. 102
Products Packaging, Inc. 185
Pylam Products Co. 180

Rapids Machinery Co. 186
Rohm & Haas Co. 115, 138
Roure-Dupont, Inc. ..... Facing 19

Schrader's Son., A. 109
Seil. Putt & Rusby, Inc. 177, 184
Shanco Plastics & Chemicals, Inc. 180
Shell Chemical Corp. 10
Shulton, Inc. 76
Sindar Corp. 81
Snell, Inc. Foster D. 179
Solvay Process Div., Allied Chemical & Dye Corp. ..... 2nd Cover
Solvents & Chemicals Group, The 163
Sonneborn Sons, Inc., L. 102
Stepan Chemical Co. 88
Stern Can Co. 166
Sterwin Chemicals, Inc. 124
Stillwell & Gladding, Inc. 179
Straygold & Associates, J. B. 179
Superior Rubber Mfg. Co. 176

Tamms Industries, Inc. 184
Thomas & Son Co., I. P. 94
Thompson, Jr., Friar 179
Thomssen, E. G. 179
Tombarel Products Corp. 168
Trio Chemical Works 164
Turner & Co., Joseph 54

Ultra Chemical Works 23
Ungerer & Co. ..... 3rd Cover
Union Bay State Chemical Co. 120
Union Standard Equipment Co. 181
U. S. Bottlers Machinery Co. 104
U. S. Industrial Chemicals, Inc. 119
Utility Co. 166

Van Ameringen-Haebler, Inc. 16, 121
Varley & Sons, Inc., James ..... 4th Cover
Velsicol Corp. 110
Verona Chemical Co. 74
Victor Chemical Works 98
Virginia-Carolina Chemical Corp. 11

Washburn Co., T. F. 20
Welch, Holme & Clark, Inc. 80
Western Filling Corp. 136
Westvaco Chemical Division 12
Wurster & Sanger, Inc. 179, 186

Zinsser & Co., William 160

Tale Ends

WELL, it's over for another year! The 27th annual conclave of the soap industry at the Waldorf in N. Y. last month was the biggest in history. The Motorama of General Motors which overlapped the soap meeting had Roy Peet, Malcolm Miller, Scott Pattison, Ted Frascinella, et al, of the Soap Assn. tearing out their hair upon occasion as per expectations. But withal, it was an excellent meeting of the industry. We have never seen the business sessions at the convention so well attended. Something like 1000 persons attended all the way from top brass to the smallest soaper.

* * *

Colgate is about ready to test market a new aerosol household insecticide yclept "Kan-Kill"—the initial test reported as 250,000 units. This is startling news following closely on the heels of the advent of Colgate's "Florient," the room deodorant. Looks like old C-P-P is really getting into the chemical specialty field in a big way. Could a powered household bleach be next on the list? Might be.

* * *

Low-cost synthetic detergents have possibilities for fog dispersion, according to a suggestion made by one, N. Pilpel of the Univ. of London, to the Ministry of Fuel. Mr. Pilpel suggests spraying a dilute solution of a detergent containing minute traces of silver iodide, dry ice or other rain seeding agent. The detergent, it seems, makes the fog particles flow together to make water droplets which grow until their size and weight make them fall as rain. Sir Eric Rideal, chairman of the Scientific Advisory Council to the Minister of Supply is reported working with Mr. Pilpel on the idea. Imagine dispelling fog, washing the air, buildings and streets of London in one fell swoop!

* * *

When the workers of Westvaco Chemical, a division of Food Machinery & Chemical Corp., go on strike, the company provides all the comforts of home for the strikers. Last month during a cold spell, the company at its Carteret, N. J. plant provided a sheltered, heated loading platform where the strikers set up a television set. Also hot coffee and doughnuts were served every four hours for night-shift pickets. Some 260 members of Local 144, International Chemical Workers Union, AFL, were on strike. Well, well-Clarissa, that's one for the record book!

* * *

Have you been asked to resign from the New York BIMS lately? Well, maybe not. But, watch your step if you are an old member and have not been active or attending meetings lately. You may be next. Recently, a few old and inactive members have been asked to move over, that is resign, to make room for some of those who occupy a long waiting list of membership applications. N. Y. BIMS membership is restricted to 200 members. Why not just boost it to 250 and not hurt the old-timers feelings?

* * *

Nothing like using your own products, says Russ Young, prez of Wingwax, Inc.,—and also, incidentally prez of the Davies-Young Soap Co.,—of Dayton, Ohio. Just to find out first-hand that this wax which they turn out to spray on airplane wings and body to make them fly faster, does a real job, Russ is now a student pilot, taking regular flying lessons. He says that he is looking further into this waxing airplane wings which makes jets go 40 miles per hour faster. At the present stage of his flying career, this is exactly the landing speed of the Piper trainer which he flies. How about something to spray on the wings to make jets land slower?

* * *

He took the cash! Our friend from Texas who won the Dial Soap jingle contest turned down the oil well and chose the money, according to Dave Duensing of Armour. Seems that a producing oil well introduced some tax complications for the winner which were not involved in receiving $25,000 in one chunk. In the latter instance, the tax problem is simple. The winner just steps up and pays Uncle and keeps what is left. Even so, we are sadly disappointed that any Texan would or could turn down an oil well just for money. After all, what's money?

* * *

Axel Sodergreen, chief chemist of West Disinfecting Co., animal handler *par excellence* and photographer of distinction, is the author of "An Acre of Leaves, a Pony and a Rotary Tiller" in the October issue of *Organic Gardening.*

Since 1893 a leader among Manufacturers,
Importers and Suppliers of Basic Materials
for Perfume and Perfume Specialties

Ungerer & Co.

161 Sixth Ave., New York 13, N. Y.
Plant and Laboratories: Totowa, N. J.

CHICAGO • BOSTON • PHILADELPHIA • ST. LOUIS • LOS ANGELES • ATLANTA

Sure! Everybody's got a Pine Oil Disinfectant...

BUT THERE'S ONLY ONE

Varco Pine

VarcoPine has captured the true forest green color from pine needles! And along with it a ***new, lighter, nicer*** pine scent with a decided tang! It is super-powered too. One gallon of VarcoPine makes 100 gallons of powerful germ-killing solution!

VarcoPine *is* different from any other pine oil disinfectant you have used!

Better 6 Ways!

1 Natural green color of pine needles.	**2** Immediately soluble in hard or soft water.	**3** Perfect stability.
4 Snow-white emulsion.	**5** Made from pure steam distilled pine oil.	**6** Refreshing NEW pine scent.

An Innovation in the Field!

LABORATORY APPROVED — JAMES Varley & SONS, INC. — FIELD-TESTED PRODUCTS

Mail this Coupon Today!

JAMES VARLEY & SONS, Inc.
1200 Switzer Ave., St. Louis 15, Mo.

Please rush my sample of VarcoPine at once and quote me in various size containers.

Name.....

Company.....

Street.....

City.....State.....

in